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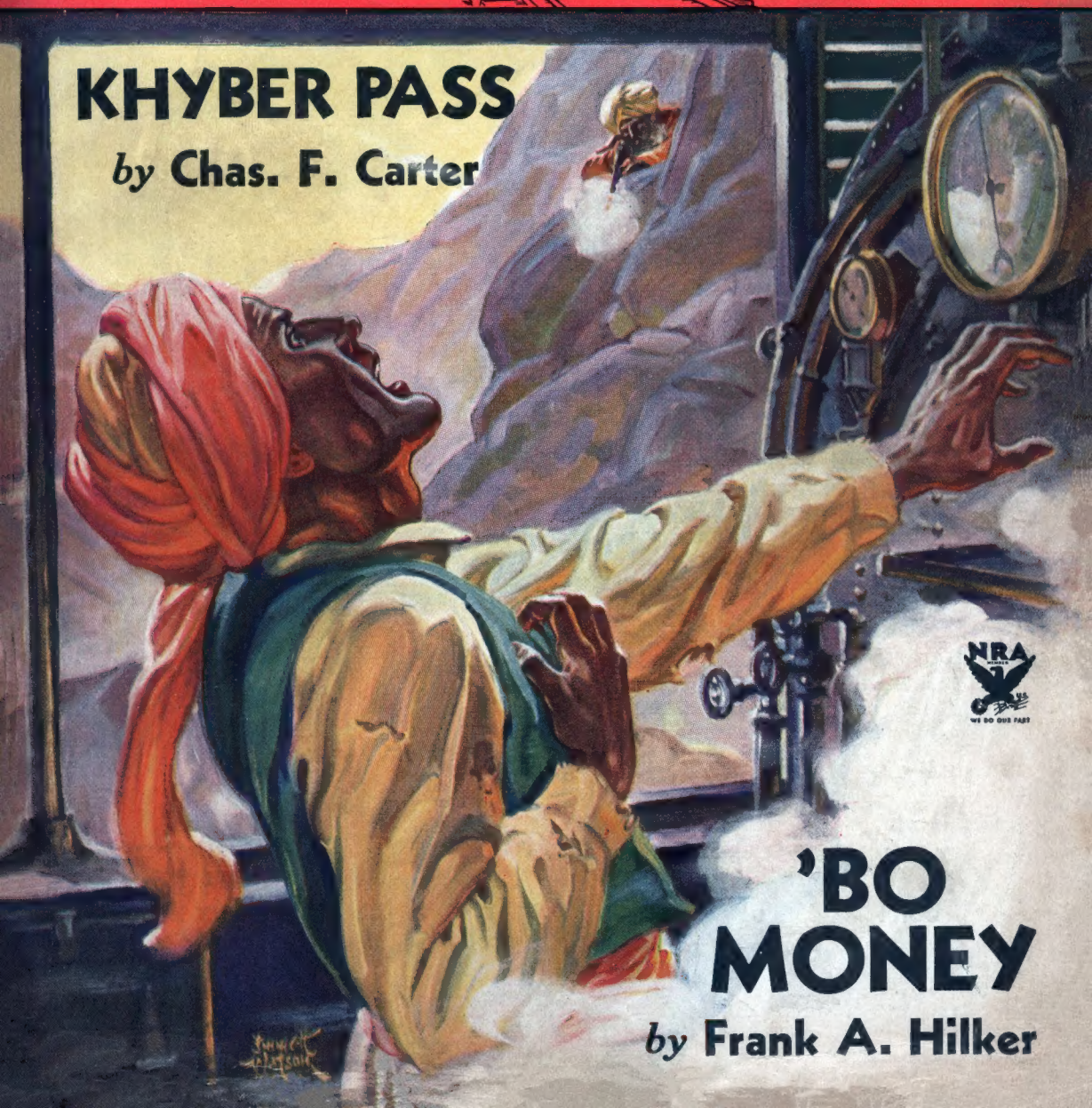

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by Frank A. Hilker

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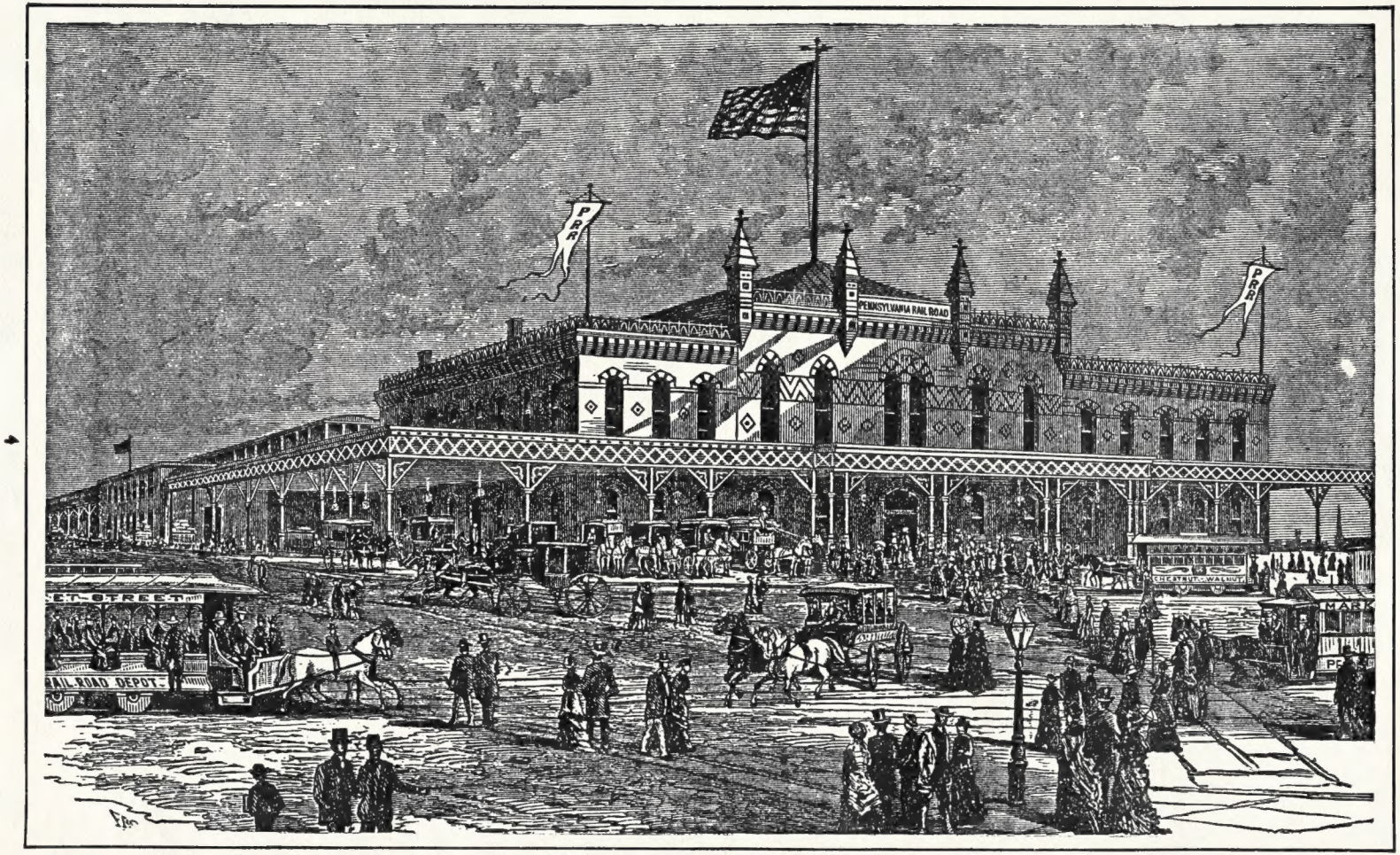
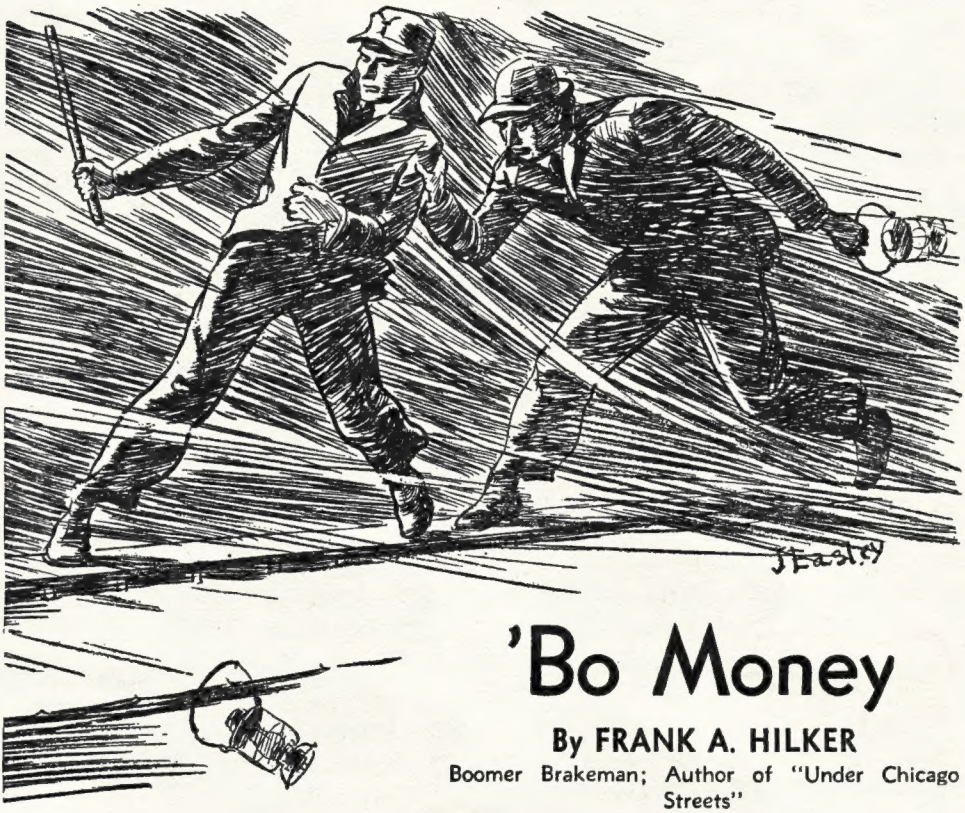


The Old Pennsylvania Railroad Terminal, West Philadelphia, at It Looked in 1876

Three Things a Boomer Brakeman Must Remember—One Is, Never Go Collecting Fares From Bums Without a Hickory Club; and the Other Two—



'Bo Money

By FRANK A. HILKER

Boomer Brakeman; Author of "Under Chicago Streets"

CHOCTAW SELLERS was squatted on the floor of the 832 caboose cleaning markers. Beside him were a bunch of old train orders, a wad of clean white waste, and a can of signal oil.

Choctaw had been called east on a made-up crew with a grouchy conductor, Pig Iron Peters. He whistled a few bars of "Casey Jones" and thought of the boomer, Baldy Stevens. Choctaw had hired out a week before Baldy, which meant seven days more seniority and entitled him to the choice job of riding the caboose. Baldy would have to adorn the smoky end of the train.

The world looked good to Choctaw Sellers. He'd only been working for pay for twenty-six days, and this would be his first trip as hind brakeman.

It was tough on Baldy, though. Their engine, the 8-spot, had no seat for him. One of the firemen had knocked out the brakeman's easy chair with a coal pick to keep students from parking in front of him when he sat down to the fresh air.

Riding the caboose, Choctaw would not have to stand up all night, like

Baldy Stevens. He sympathized with Baldy and muttered:

"Damn these firemen!"

Some oil spilled on the caboose floor. Quickly he cleaned it up. Then he wiped the lenses with white waste, polished them with flimsies (train orders), and sat puzzling over the arrangement of movable colored glasses —the glasses by which the trainmen turns his markers from red to green when he gets off the main stem, and back to red when he gets on it again.

Choctaw had never yet turned a marker. He finally found the little "key" at the bottom of the marker frame, and flipped the glass—green, red, green.

"That's her, all right!" he chuckled.

Finally he lighted the wicks, adjusted them so they would not smoke, and took the markers to the rear platform.

IT was raining. A cutting wind blew out of the east. He ran a hand up the corner of the caboose wall, found the socket, and set the marker in it.

Two lanterns were coming through the rain. That would be Pig Iron and Baldy. He wondered why the head brakeman was coming to the crummy (caboose). The head brakeman's place was to get out the hog and couple it onto the train. Choctaw knew, because he had been braking nearly a month.

Puzzled, he crossed to the other side of the platform and put up the right marker. Then he noticed it was red, noticed that the left one was green.

He jumped quickly to the left side to turn that one red before Pig Iron and Baldy came. Then he stopped. Should it be red? or should it be green? The young brakeman was not quite sure. He recalled Rule 19—"—green to front and side—and red to rear, except when train is clear of main line, when it shall show green to front, side, and rear—"

He was clear of the main line now. The markers must be green! Promptly, he stepped to the right side and turned the red one green. At that moment, Pig Iron and Baldy swung up the rear platform. They were talking like brothers. Pig Iron said to Choctaw:

"Hello, kid."

Baldy nodded. Choctaw said:

"Hello, fellers! Kinda damp tonight!"

Baldy and Pig Iron began changing clothes. It was the first time Choctaw had ever seen Baldy with his hat off. The boomer, though not yet thirty, had a frontal bone bare as a billiard ball. Choctaw wondered how they got that way.

While he was wondering, he got out the broom to sweep the floor. It was not dirty, but he commenced sweeping anyway. Pig Iron winked at Baldy, then turned to Choctaw.

"Yuh better beat it over to the roundhouse an' get that engine on, kid," he said.

"What's that?" Choctaw leaned an elbow on the broom handle. He was grinning confidently, as though he understood the joke.

"I said yuh better go over an' get—"

"Don't try to kid me tonight, old-timer," breezed Choctaw. "This other guy's the one that's goin' after the engine. I'm workin' the hind end."

Pig Iron lighted a short-stemmed cob pipe, came close to Choctaw. "The hell you are!" he breathed. "Since when—"

Eagerly the young brakeman interrupted: "Our rules says the man hav-

ing the most seniority has the choice—"

Baldy chuckled. Pig Iron jerked the cob pipe out of his mouth.

"Seniority!" he bellowed. Then he turned toward Baldy. "Git a earful uh this, will yuh, boomer? *Seniority!* Kid been workin' the job three weeks, an' talks about seniority—"

Choctaw flushed. He had not yet learned how to argue. He was learning, though.

"Well, I reckon—" he began. He did not finish.

PIG IRON stepped closer to him, thrust a square jaw backward, a crimson face forward.

"Listen here, little one!" he advised. "You trot along over to the pen an' git the pig out. Don't fool about it. There's a rule on this railroad says the conductor shall place his men where he wants them to work. Now, I want Stevens—"

"But—but—"

"Don't *but* me, dammit! If I stop on the main stem I want a man back there that knows how to do a job flaggin'—one that won't stand on the platform an' let somebody come plowin' around a curve an' smack me in the hind end, and git me fired fer not knowin' a student brakeman was back flaggin'. Git outa here!"

And Choctaw, like an egg hound sneaking out of an Arkansas chicken coop, found his lantern and slunk forward to find the engine.

After Choctaw had gone, Baldy stood grinning at the conductor. Pig Iron was fairly frothing at the mouth.

"Why, of all the crust I ever seen! Goin' to work behind, was he? Rights! Seniority! Hell! An' he don't know how to give a back-up sign or hang out a pair uh markers."

Still raving, Pig Iron went over to the yard office for his bills and orders. Baldy adjusted the markers, got out the red light and set it on the rear platform. Then he fastened three torpedoes to its bale, stuck two fusees into the floor beside it.

After that Baldy went forward, inspecting his train. He let off the hand brakes. He coupled the hose connections. He fastened the doors of empty box cars, opening each one before he fastened it to make certain it was empty.

In fact, two of the cars were not empty. In the rear end of a wooden N. Y. C. car, forward from the middle of the train, were two bums. Baldy pretended not to see them. He closed the door. In the forward end of a Pennsylvania, four cars ahead of it, was one bum. Baldy grinned and fastened that door. Then he went on back to the caboose.

When Pig Iron caught the caboose as it pulled by the office, Baldy was waiting for him on the rear platform.

"Yuh know, cap," the boomer said with a chuckle, "there's jist one difference between a old head an' a student."

"What's that?"

"The passengers fares he collects."

"Yeah?" Pig Iron looked up quickly. "I reckon that's about it, Baldy. You two both get the same pay. Only place where yuh got the edge on Choctaw's in 'bo money."

The two men climbed into the doghouse. They smoked in silence, while five miles drifted back into the night. After a while the conductor leaned toward Baldy.

"Speakin' uh 'bo money," he said, "reminds me yuh got some side-door passengers over there tonight. Did yuh see 'em?"

"I ain't been around to collect yet, cap," Baldy countered. "I'll hit 'em up after we pass the tank. It don't pay to be in too big a hurry collectin' fares."

WHEN they stopped at the tank Baldy fished a railroad spike out of the bunker and found a stout hickory brake club. Thus equipped, the boomer decided to look his train over. He went ahead until he met Choctaw.

"Wha'dya say, kid?"

"Not a cock-eyed thing," was the answer, "only I think that ol' crab handed me a dirty deal."

"Don't cry about it," advised Baldy. "Wait till yuh git tuh be a old head like me. Then yuh can hand it back to the other guy."

Choctaw clamped down his jaws and went back toward the engine. Baldy did not go toward the caboose. He watched to see that the student did not molest his passengers.

Then he put out his lamp. He went forward and unlatched the doors of the two cars which were not empty, came back a little way, and lighted his lamp again.

When they pulled away from the tank, Baldy climbed to the top of the train and walked forward. He located the N. Y. C. with the door unlatched.

Slipping the spike out of his pocket, the boomer used his club for a hammer, and drove it into the roof of the car directly over the door facing. Then, taking his club, he pried open the door, grabbed hold of the spike, got a foot on the hasp, and vaulted down inside.

It was quite dark. His lantern did not light the interior too well. He located the two bums. They were young fellows of eighteen or nineteen. They were dirty and they looked scared.

Baldy smirked. This would be easy.

"Where you guys goin'?"

"St. Louis," one of them quavered.

"Got any money?"

"Yeah. I got four bits an'—"

"Four bits don't go," rasped Baldy. "Fare over this pike's a dollar a division. Cough up. Dollar apiece or unload."

"But—"

"Take it or leave it. Dollar apiece or hit the cinders."

Slowly one of the boys dug into a pocket and brought out a small roll of bills. He stripped off two singles and passed them over.

"It's a helluva note," he grumbled. "Guy might as well ride the cushions."

"Oh, no, pard. Not so! Not so! Cushion fare's four thirty-five. Think! Yuh save three thirty-five, an' look at this nice quarters yuh got here—the whole car to yourselves an' cornshucks enough to bed an army."

Two dollars to the good, Baldy shinned up the facing, placed a foot on the catch, found the spike in the roof, swung atop the car. Then he knocked out the spike with his club and, whistling in the rain, went forward to the Pennsylvania.

Atop the Pennsy, the operation was repeated. The spike was driven into the roof. The door was pried open with the club. And then—

Just as he was in the act of going down inside, his foot slipped. In catching himself, the boomer lost his grip on the hickory club. He felt it slip from his cramped fingers and go whirling away into the night.

Baldy swore, but did not back out. He had gone into many a car without club, or badge or anything except bare hands. Finding the door catch, he swung himself lightly and landed in the center of the car.

INSIDE, he held up the light and looked about. In the head end of it a figure was reclining on the straw. He went forward.

The figure arose at his approach, sauntered slowly toward him. He was a huge burly Negro, thick lips, sloping forehead, hands like sledge hammers, arms like a gorilla.

Baldy did not flinch. "Where you goin', Rastus?" he queried.

"Me. I'se gwine to Sain' Louis, boss," assured the Negro.

"Yeah? What yuh ridin' on?"

"What I'se ridin' on?" The colored man laughed. "Why, I'se ridin' on dis yeah train, ob co'se. Cyan' you ah' see dat?"

"I mean, yuh got any money?"

"Sho, I'se got money."

The Negro slipped a hand into the left pants pocket and drew out four silver dollars. He dropped them on the car floor, squatted over them, opened a big jackknife and balanced it in the palm of his hand.

Baldy looked at the dollars. And at the knife. And at the black man's eyes. They were glistening.

"What you ah' gwine do about hit, boss?" the Negro asked with a wicked grin.

Baldy was not going to do anything about it. He was no fool when he was sober. He had not been drinking tonight. After looking at the money for a minute or two, he turned and climbed back to the running boards. He did not pull the spike.

The Negro gave a horse laugh, then curled up in the corner to sleep. But he did not sleep long. He had missed his guess on Baldy Stevens.

When Baldy hit the top of the car his mouth was a thin line. His eyes were two narrow slits of fire. Cursing himself for trying to collect without a club, he struck for the caboose as fast as he could go.

Clap-clap-clap, his brogans hit the decks, five steps to the car, and a jump over the coupling. He swung into the cupola through the side window.

Pig Iron looked up from his writing.

"That you, Baldy?"

"Sure, it's me," Baldy replied.

He was fumbling under the seat. Soon he found a hickory club, and struck the boards once more, walking hurriedly toward the head end. He did not tell the conductor where he was going. Pig Iron did not ask.

Returning to the Pennsylvania, the boomer swung down inside. He had the club in his hand now. He wished he had a gun.

The big Negro started to his feet. In the dim glow of the lantern Baldy could see the whites of his eyes. There was no laughter in them now. There was fright—and something else, which Baldy had seen before.

The train was running twenty miles an hour, now, and picking up speed on the level.

"Git offa this train, you black swine!" he yelled. "Git offa here before I knock yuh in the head an' throw yuh off."

"But—but—but I cyan't git off'n no train runnin' lak dis un, boss," stammered the hobo. "I—why, I'se break my haid sho! Heah—heah's yo money!"

The Negro fumbled in the pocket again. He brought out a dollar, two dollars, tossed them on the floor at Baldy's feet. The brakeman ignored it.

"Git off, I told yuh," roared Baldy. "Git off! Don't stand there! I—"

Club drawn back over his head, he was advancing steadily, warily. He was within six feet, or eight at most. The African took a step backward. His

hand swung behind his head. Light flashed from polished metal. The black hand shot forward in a deadly knife throw!

Baldy dodged, but not far enough. With an angry hiss the knife shot forward, caught the arm with the club in the flesh below the elbow.

Baldy's arm went limp. The grip on the club relaxed, and the black man sprang forward, panting.

UP in the cab of the 8-spot, Choctaw Sellers stood on the gangway, holding to the grab-iron. It was wet and cold. The east wind was whipping rain in through the opening.

Choctaw did not mind the rain. He needed its cooling touch to calm the anger boiling within him—anger at the two men who, he reckoned, had cheated him out of his first trip braking behind.

Looking forward, then back, he saw Baldy's light come over the top of the train and disappear about twenty cars behind the engine. He wondered what the hind man was doing over here tonight.

Soon the light swam into view again. It came forward several car-lengths and then vanished. It was not gone long this time, until it came back on top, and moved hurriedly toward the rear.

"Wonder what that sonuvagun's doin' over here on my end uh this train," Choctaw mused.

He had not yet learned to collect fares from his passengers. Not that he was afraid. He just had not learned. In fact, he did not even know he had passengers.

Soon the light came over the top of the train. Choctaw wondered if something could be wrong. He knew that if there were trouble on the train and he remained in the engine, Pig Iron would chew him when they stopped.

He climbed over the tank and started back to investigate. The train was running twenty miles an hour. Choctaw did not mind. There were plenty of things he did not know about railroading, but getting over a string of moving box cars was not one of them.

He walked rapidly. Soon he came atop the Pennsy with the open door. He could hear sounds of a struggle below. He dropped down on the roof and peered in.

Two men were fighting. A lantern was setting by the door. Choctaw could see that one of the men was Baldy. He slipped to the end of the door, without noticing Baldy's spike. He would not have known why it was there if he had.

Placing his hands on the roof, the young brakeman gave his body a quick swing and landed almost atop the fighters. Baldy was underneath. The big Negro, though he himself was gasping, was rapidly pounding the brakeman into insensibility!

There was no question in Choctaw's mind which side he should take in the affray. The bum looked up with frightened eyes. Choctaw swung a powerful right to the left temple.

The African turned Baldy loose and started to his feet. Before he could recover his balance, Choctaw let him have it again, under the chin. The hobo staggered.

Choctaw tried once more. This time he failed to connect. Like a whirlwind, the bum plunged head down for his middle, sent him hurtling halfway across the car.

By this time Baldy was on his feet. Quickly he recovered both knife and club, which he and the hobo had been struggling to recover. He slipped the

knife into his pocket, grabbed the club, and made a dive for the Negro.

The boomer was roaring now like a maddened bull. The African did not resist. He was near the door. Without invitation, he leaped out of it, landed far down the dump, and went rolling into the brush below.

THE jolt from the hobo's rush had addled Choctaw. He shook his head and stumbled back to his feet. Baldy was in the door, nursing an arm which dripped with blood.

"You sure was a life-saver to me, kid," he said fervently.

"Hurt much?" Choctaw inquired.

"Nah! Big devil got me in the arm with that frog-sticker uh hisn. Jist a skin cut, I think."

Baldy hunted in the straw and found the two dollars the 'bo had thrown down. He gave Choctaw one of them.

"What's that for?" asked the kid.

"'Bo money!" Baldy chuckled, slipped the silver in his own pocket.

"Thanks!" muttered Choctaw.

Baldy led the way to the top of the train, using his spike as usual. Choctaw planted a foot on the door catch and swung himself up. He placed the left hand on the roof, then the right, and without using the spike, came up beside the boomer.

Baldy stared in amazement. "Come up outa there without the spike, huh?"

"Sure!"

"I've heard uh that trick before. First time I ever seen it done."

"It's easy," Choctaw grinned.

"Yeah. Looks like it—for you."

Baldy returned to the caboose. Choctaw Sellers went to the engine. He had about decided Baldy was a pretty good guy, after all.

At Bogfield they took siding to let No. 6 by them and meet No. 5. Choctaw stood by the switch and watched the train run in by him. Some conductor had once told him that it is easier to find dragging beams when the train is running than when it is still.

Baldy was on the rear caboose platform. He let Choctaw close the switch. As soon as the caboose passed the clearance peg, he turned the markers green so the hoghead on No. 6 would not shoot around the curve, see red lights, and go out through his cab window. Choctaw started to go by the caboose. He did not go in. Baldy yelled to him.

"Where yuh goin', kid?"

"I'm goin' ahead an' look 'em over."

"Aw, they're all right. Come inside outa that damn rain."

"I gotta git over here to open the switch."

"Ah, yuh don't need to go. We'll have the hogger back out after Five goes. Come on in an' rest your feet."

Choctaw did not need much urging. He was glad to get out of the storm and find a place to rest. Standing up in an engine cab all night gets tiresome.

Pig Iron was lying on the caboose cushion, snoring away. Baldy jotted down on the delay sheet the time they cleared. Then he nodded toward the conductor.

"You see, kid," he explained. "When two guys understands each other, they can get plenty shut-eye. Now, cap'll sleep there till one, two o'clock, an' I'll look after 'em. Then he'll get up an' look after 'em awhile, an' I'll hit the hay. See?"

Choctaw saw. He had learned several things that night. He was going to learn more before morning.

THEY had a long wait at Bogfield, an hour at least. Baldy did not go to sleep. He was the kind who

never bats an eye when it's his turn to watch. He kept tab on time and trains.

Climbing into the cupola, he invited Choctaw to occupy the other side of the doghouse and rest his bones. They talked about the ferocious Negro and the knife cut Baldy had gotten in the fight.

"Yuh see, kid," Baldy explained, "it takes nerve to collect 'bo money."

"Yeah!" Choctaw reckoned it might, if the knife got low enough.

"You betcha. An' a guy has to use his head an' his fists to get away with it."

"Do you—collect much?"

"Oh, sometimes. Got five bucks last trip in."

Baldy did not say how much he had gotten tonight. He would have to split with the con, when Pig Iron awoke. He fingered the two greenbacks and the silver wheel.

"Talkin' about 'bo money makes me think uh the Northern," Baldy reminisced. "Give me a match, kid!"

"Sure."

Baldy lighted a pipe and blew many puffs of smoke into the top of the cupola.

"Yes, sir, that Northern's a hobo paradise."

"Is that so?"

"I'll tell a man. Why, yuh take it up there in the fall after harvest an' every train's full uh passengers. The harvest hands is goin' home. They've all got money. Easy! Brother, I've made single trips there that I got as much as fifty dollars outa one trip."

Choctaw's eyes bulged. Eagerly he scanned the face of the boomer, through the dim light of the cupola.

"Yes, sir," Baldy continued, "talk about 'bo money. That's the place yuh find it."

No. 6 went by. She was going to Myangua for No. 5. Baldy looked at his watch, slipped it back into his pocket. He dropped down to the floor and wrote on the delay sheet the time Six went by. Then he climbed back into the cupola.

"Yes, sir. That's the best job uh railroadin' in this whole damn country."

"Maybe I'll go up there some time."

"That's right, kid," said the boomer. "This homeguard stuff don't pay. Why, all yuh do's set down on a job an' grow into a mossback. Jist like some uh these guys. Now look at Pig Iron! Look at me! We been places an' saw things!"

"I guess you have."

"I have, kid. But take it from me, there's three things a boomer'll live a helluva lot longer if he remembers."

"Three things?"

The boomer nodded. "First, never go collectin' fares without a hick'ry brake club, because yuh never know when some 'bo's goin' to decide not to cough up. Second is, never crawl under a box car without pullin' a pin an' breakin' your train line, because yuh don't know when the hoghead's goin' to take a notion to move the engine so's he can find a oilhole or so's the fireman can dump his ashpan."

"An' what's the third one?" the kid wanted to know.

Baldy grinned. "The third one, son, is never go flaggin' a female that's doubleheadin'—"

"Doubleheadin'?"

"Yeah. Married. Because yuh never know when her ol' man's goin' to back in without ringin' a bell or tootin' a whistle."

"Oh!" Choctaw's ears burned. Listening to an old head like Baldy made him realize there were lots of things

he had not yet learned about railroading.

THEY arrived in Oldberg at 8.10 next morning. Choctaw joined up with Baldy as a steering committee. Baldy introduced him to the gang in the caboose.

They played poker most of the forenoon. When Choctaw left he had paid ten-fifty for his lesson. He did not particularly care. The young brakeman had no one to look out for except himself. He wanted to learn railroading from all angles, because long before reaching Oldberg he had decided he wanted to be the kind of railroad man Baldy Stevens was.

In the twilight of that afternoon they left Oldberg on a drag. It was not raining, but a thin fog clung to the river bottoms, while smoke lay low over the freight yards and the roundhouse.

Choctaw got out the engine. He did not have to be told.

They had trouble from the moment they started. Before they had passed Gerome they had a hot box on a car of coal. Baldy pulled the air on them, and stopped to cool it. Choctaw found two others before he met Baldy. He carried water from the engine and cooled them off.

At Jacks they had to pick up a car of coal set out by another crew. They "lunged one" pulling out, and had to set it in siding. It was nearly midnight when they got away. They went down Jefferson Hill to meet No. 6 at Meowdon.

Choctaw let the train run in by him again, looking for dragging brake beams. He found one. It was on a car of coal, fifteen back from the engine.

The night was still foggy. Choctaw could not get a signal to the engineer. He was afraid the train might go in the ditch before he could get them stopped. Grabbing on the car behind it, he stood with beating heart while they pulled into the clear. Then he hurried panting over to the engine.

"I've—I've found one draggin'!" he panted, swinging up the steps.

"You have?" The engineer winked at the fireman.

"I'll say I have."

"Reckon yuh can take it off without wreckin' the box car."

"Sure, I can take it off."

The engineer opened his toolbox, fished out a Stillson wrench, a hammer, and a cold chisel.

Choctaw went running back to locate the dragging beam. Immediately he crawled under and began work. It was not long until he got three fingers mashed and his eyes full of iron rust. He had two bolts out.

Soon Baldy came over. The boomer had been cooling a hot box back toward the rear. He saw Choctaw working, stooped down and looked under the car.

"Found one draggin'?"

"You bet I did."

"Did yuh pull this pin an' open the anglecock?" inquired the boomer.

"No! I went over an' told the hoghead."

"That won't always work, kid. Hogheads forget same as the rest of us. Suppose he took a notion to move that engine, an' you under there. Suppose—"

ALMOST as if it had been a signal, the two brakemen heard the slack begin going out of the cars. They could not tell whether the train was moving forward or backward, but it was going somewhere.

Choctaw began scrambling out. He knew that soon some box cars would be rolling over the spot where he was camped. Never in his life had he tried to get out of a tight place in such a hurry.

Baldy got out of his way to give him room, stood ready to help.

Choctaw, under the cross timber, was ready to lunge out from between the cars. As he made the leap a suspender strap caught on a bolt head. Instead of going clear, he sprawled squarely across the rail!

The movement was sweeping backward. One car, two maybe, and the wheels would roll over him! Choctaw let out a yell.

Baldy came into action. Dropping the lantern, he seized Choctaw by the shoulders and as the wheels darted forward, jerked him out from between the cars.

"That was a close one, son," Baldy said, lighting a pipe.

"It sure was."

Choctaw was laughing crazily. But the shaking in his knees was not from laughter.

He went with Baldy to the engine. Baldy talked to the engineer. What he said was something to remember. It was the first time in his short railroad career that Choctaw had heard a common brakeman talk thus to one of these oilcan aristocrats. Choctaw had never dreamed it could be done. He stood open-mouthed, listening.

When Baldy had finished they went back to the car. Uncoupling the one ahead, they pulled it forward, three car-lengths, and opened an anglecock so the engineer could not pump the brakes off.

"That's the way yuh protect yourself on a job like this," Baldy said. "An' don't forget. There's three things a boomer'll live a helluva lot longer if he remembers. The first one is, never go collectin' side-door fares without a hick'ry—"

THAT was back in '15. Baldy was working out of Rawlins when the World War came. He went to France, and did not return to Rawlins to claim his seniority. He did not know the boomer trail had rusted out.

Choctaw was working around Las Vegas when the war came. He, too, went to France and failed to show up again at Las Vegas to claim his seniority.

All through the spring and early summer of '19, the two men followed the iron road.

October came. Wheat harvest was ending on the northern prairies, and the harvesters were returning to their homes in the Ozarks, in the South, in the cities of the East.

And down on the B. & O.—

Baldy Stevens flashed his traveling card on the con. It pictured a passenger train at full speed. Somehow he had managed to keep it up to date. It was one of his prized possessions.

Pap Flannigan looked over steel-rimmed spectacles, grunted approval, and resumed his writing.

"We'll pull out as soon as Number Seven clears. She's in the block now."

Baldy climbed into the cupola, lighted his pipe. Soon Crosby, the hind man, highballed, entered the cupola through the side window, and assumed an easy posture on the cushioned board across the seats.

"Where you heading, brother?" Crosby asked.

"Headin' for the Northern. Understand 'bo money's good for ten bucks a trip up there. Dollar a division or they don't ride. A fellow

ought to be settin' pretty in a coupla months."

"Yeah?" Crosby lighted a fag. Crosby had been around some, too. He had returned to the job from which he had enlisted. "You'll need a brake club, an' a gun, an' plenty uh nerve to collect these days."

"I've been there, brother," informed Baldy. "The 'boes in that land are sure tough. I don't mean maybe. See that scarred finger?"

Crosby nodded.

"Chewed to the bone by a bum I had down. A guy earns his dough on one uh these wheat runs. I ain't kiddin' myself none. But, brother, I need it."

A mile of ties drifted back into the night. The two men looked forward where the column of smoke rose into the moonlight.

"Can't yuh ride the cushions on your card, Stevens?" Crosby asked.

"Yeah. I'll get a pass west out of Chicago, though. The road's advertising for men an' shippin' them west."

"Must be needin' 'em when they do that."

BY ten o'clock the following morning Baldy was in Chicago, and on the twelfth floor of the Pacific Building. The general manager's office was not hard to find. Soon Baldy was seated—rather closely, he thought—to the king of the line.

In order to prove experience and qualifications, he showed his Brotherhood receipt and that was all. It cut out lengthy examinations, and the tedious work of filling out application blanks. Leave it to the railroads to find short cuts!

Baldy was not in the office long. A clerk came with his pass, laid it on the desk. The G. M. signed it, removed the cigar from his teeth, and leaned still closer to Baldy.

"Stevens," he said, "I'm sending you to Saker. There are too many people riding our freight trains on these Western lines instead of buying tickets. We run passenger trains to carry passengers. I'm hiring you to go out there and chase the bums."

"Yeah!" thought Baldy. "I'm goin' up there to lick the sugar. Watch me!" He said: "Yes, sir. Leave it to me!"

Harvest hands had been scarce that fall. Railroads had known it; and while no invitations were given, men had found it easy to get to the wheat fields by freight.

Coming back was a different matter. The company wanted to make 'em pay. Their slogan was: "Let 'em ride, but make 'em pay."

They did. But most of them rode the freights, and paid the brakemen!

Out around Saker, particularly, the hobo transportation problem was acute. The officials knew that harvest hands at five dollars a day earned enough money in a season to pay their way home on the cushions. Literally hundreds of dollars were being diverted to the pockets of the train crews which should repose in the company coffers.

The general offices in Chicago had plenty of correspondence with the Saker local group. Letters so hot they fairly melted the locks off the mailbags were darting to and fro.

We wish to call your particular attention to the night of Sept. 11th, when a dozen hoboes left Saker aboard one of our freights . . .

Beg to advise that this office has made efforts to apprehend offenders against rules regarding unauthorized transportation of . . .

Still the hobo traffic continued.

That night Baldy Stevens sat in the

smoker of a passenger train bound for the Northwest. He laughed to himself as he thought how he had slipped it over the G. M. in Chicago. He was on his way to easy money. Easy money! Yeah! Easy come, easy go, as the fellow said who worked in the brick yard.

A smile on his face, Baldy Stevens dozed. He dreamed of long drags, and hot days and cold nights, and empty box cars filled with men shelling out the coin. Easy money! 'Bo money! And he would get it!

CHOCTAW SELLERS was on the same train that night. He, too, was going to Saker. He had not paid his fare. Neither did he have a pass from the Chicago office, nor a paid-up receipt in the Brotherhood. He had figured how to make the easy money without them.

Snake-like, he lay face down beside the flue of the diner. The pipe from the chef's range was warm, and the air was chilly.

Once at a junction the train stopped to make connections with a branch line. The chef stepped out on the platform for a breath of air.

"What's the chance of a sandwich, chef?" Choctaw called down from the roof.

The chef looked up quickly, almost startled. Deck riders were no novelty but they seldom picked the diner. The cook had not been bummed for several trips now. Instead of reporting to the conductor, he went inside, fixed up a package of hot ham sandwiches, and passed them up to the man overhead.

"Thanks, chef!" Choctaw told him.

The train left the junction, and Choctaw left with it.

Late that night the train pulled into Saker. Baldy looked the place over in the darkness, yawned sleepily, had steak and eggs in the lunchroom, and then hit the hay.

At 9.30 the following morning he emerged from the trainmaster's office with an order for his switch key, lamp, and book of rules. He located a boarding house and waited his call. Late that afternoon he was looking over a train ready to pull out for the East.

The rules were that the doors of all empties should be closed and latched, partly because of wind resistance, partly to keep hoboes out of them. Baldy, faithful to his duty, fastened doors, kicked at brake beams. Occasionally he mounted a car to release a set brake, or to loosen a binding shoe which might hinder free car movement or burn up a pair of wheels.

Near the middle of the train Baldy passed an empty. When he had gone, a dozen hoboes came from behind the pile of ties, opened the door, and climbed in. Baldy pretended not to know it.

A highball from the hind end. Two short blasts of the whistle. The head man was on the pilot where he could jump off to line up switches for the main, and the train was away.

While they were ascending a long grade, darkness fell. A man with a lantern, a brake club, and a brakeman's badge came stealthily from an empty coal car and climbed the box where the hoboes were riding.

It was not Baldy Stevens. It was Choctaw Sellers. Quickly prying open the door, he slid into the empty. He did not use a spike.

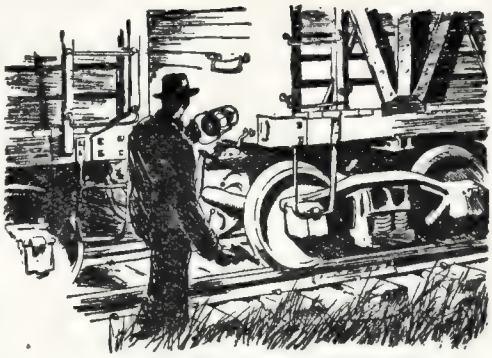
"Now, gents," he said coolly, "if you want to ride it's one buck, less than a cent a mile to take you over the division. No arguments nor frisks. We're a full crew. Shell out or hit the cinders!"

The gang was the usual crowd of hoboes, husky, hard as nails, strong in the strength of numbers, coming from the wheat fields. Some wore overalls, some sweaters. Most of them had heavy-soled shoes. Some were riding light. Others had bundles. The odor of stale cigar butts filled the car.

"You guys all got dough," sneered the brakeman, "but you pick up snipes."

CHOCTAW laughed, began his collection. There was little murmuring. His proposition seemed fair enough.

He took the singles, made change for the fives and tens, going the rounds, lamp under arm, collecting fares in true conductor style.



As soon as he had finished he placed his foot on the door catch, left palm on the roof, and then the right hand, without his spike. He was again on deck, weaving forward to the gondola. There, with a quick jerk of his lamp, he extinguished the light, removed the brakeman's badge, and put it into his pocket.

Choctaw laughed good-humoredly, lovingly stroked the bulging hip. "If that's a sample of the collections on this pike, I'll bring a satchel next time."

Then he sat down in the gondola, expecting to drop off at the water tank a few miles up the line, catch the next train back into Saker, ride another string of empties out before the dawn came, and gather in another harvest of 'bo money.

He did not do so.

Thirty minutes later the freight stopped at the water tank. Choctaw, still grinning in the dark, dropped off the gondola and crawled behind a pile of ties.

Soon the swing brakeman's light came along the ground. The brakeman was bare-headed. Passing each car, he lifted his lantern to look at the catch. As he came nearer Choctaw could see in the light of that lifted lantern a familiar frontal bone, bare as a billiard ball.

The watcher started. He remembered a night in 1915 when he had been under a train, and—

He arose from his concealment to peer over the pile of ties. Yes. He was not mistaken. The face, the features, the long, swinging stride could belong to only one man.

Suddenly a fear clutched at his heart. He knew Baldy Stevens, knew instantly where Baldy was going. And why.

He gripped the brake club and lantern, crawled around the end of the tie pile, and followed close behind. Straight to the empty walked Baldy, to the empty with the open latch.

Choctaw heard Baldy go into the car, heard the roar which went up from the bums.

He crawled nearer. Concealed by the darkness, he saw a big Swede step forward.

"What you guys bane want now?" roared the Swede.

Baldy hesitated. Choctaw knew that not a man in that car was tougher than Baldy, knew that Baldy would fight anything on two feet. He set down the lantern, ran a hand down the length of the club.

Baldy was smiling in friendly fashion.

"The fare is one dollar apiece, boys. That's—"

A big Arkansan stepped forward to back up the Swede. Baldy squared away with the club. The Swede and the Arkansan came nearer, stood with clenched fists, not five feet from the brakeman.

"Guy jist cleaned us back thar on that hill," roared the Ark. "Come a climbin' right down offen that ar roof."

"Yeah, an' widout no spike, too," piped up a puny shrimp.

Baldy started. "Raspberries!" he scoffed. "I never seen but one man—"

HE did not finish. The Swede swung into him. Baldy was prepared. He swung the club over his head, sent it crashing into the crown of the man who was advancing. There was a thud, a cry, and down went the big Swede.

With a roar, the mob broke loose. Choctaw heard them. Into his own mind flashed a picture, a memory, a night on the S. & S. at Meowdon when he had been helpless across the rails and Baldy Stevens—

In one leap he was inside. One swing of the club sent a hobo sprawling. Ahead, in the dim light of the lantern which still set where Baldy had dropped it, he could see Baldy fighting with his back to the wall.

Choctaw's club flashed again, and still again, before the mob knew that an enemy was behind. And then they turned.

"Here's the guy that cleaned us," cried one.

"Git him!" cried another.

"Kill the—" yelled a third.

For what seemed like hours, the night was filled with the noise of the struggle. Blows, curses, cries, the scuff of feet on oaken boards. And then one of the 'boes came surging back.

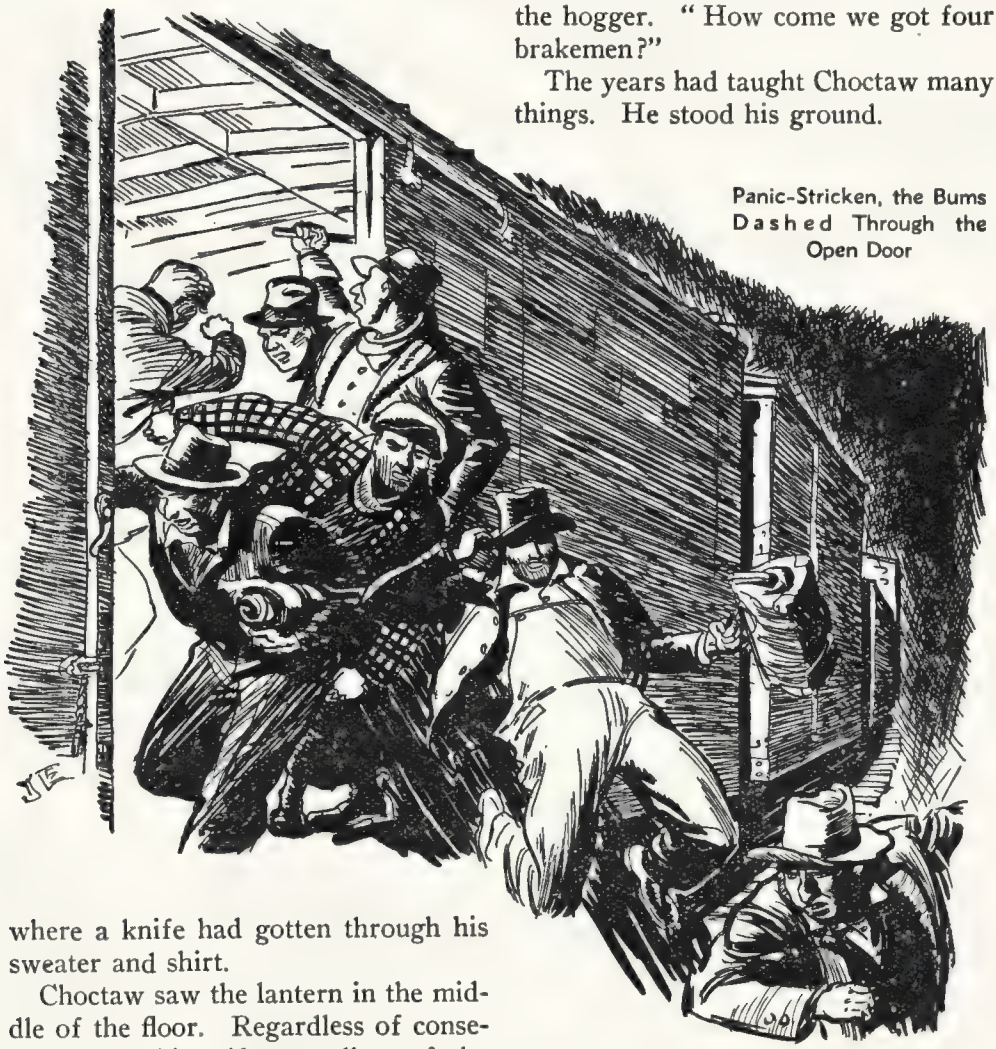
"Let's git outa here, youse guys. Quick! Let's beat it. *The bald shack's dead!*"

Panic-stricken, the bums dashed through the open door. In a moment only Baldy Stevens and Choctaw Sellers were left. The hoboes had fled into the dark.

Up ahead, the engineer was sounding four long blasts of the whistle, calling in the flag. In the rear of the empty, Baldy Stevens was groaning.

Choctaw ran to him, picked him up, felt his pulse.

Baldy had a knob on his bald head. He was bleeding from a cut in the side,



Panic-Stricken, the Bums Dashed Through the Open Door

where a knife had gotten through his sweater and shirt.

Choctaw saw the lantern in the middle of the floor. Regardless of consequences to himself, regardless of the fact that if Baldy Stevens died he could be booked for murder, he seized the lantern, sprang to the door, and waved a stop sign.

The engineer answered. Choctaw dashed back inside, looked once more at Baldy, rushed out the door, and on to the engine.

"Hey, you hogger!" he cried. "When yuh get a sign, pull up a little. The swing man's bad hurt. We got to git him on the crummy an' git him to town! Quick! Watch for a sign!"

"Who the hell are you?" demanded the hogger. "How come we got four brakemen?"

The years had taught Choctaw many things. He stood his ground.

"Don't ask no questions, dammit!" he cried. "You answer an' obey signals from the rear."

Choctaw hurried back. The head brakeman was close behind him. They carried Baldy out of the empty box car, laid him on the ground beside it.

Soon the conductor came over and asked questions. Choctaw knew that

when a fellow gets in a tight place, the best thing to do is keep his mouth shut as much as possible, and let the other fellow do the talking.

They loaded Baldy on the caboose. He came back to his senses before they were moving. He looked up into Choctaw's face and grinned.

"Thanks, old-timer!" he said. "If yuh hadn't waded in, it'd been my last trip."

Baldy reached up a hand. Choctaw gripped it in his own.

"I—I'm kinda changed since we used to work on the S. & S. outa Springfield," Choctaw apologized. "But I ain't forgot that night you took me out from between the cars when the hoghead backed up without a signal. I was new at the game then."

"I see you ain't now!" murmured Baldy. "You've learned plenty. That's all right, kid."

Baldy fainted away. They thought he was dead. He wasn't.

CHOCTAW did not leave Saker. He remained for the investigation, but offered little information. He told the truth, and mighty little of it. When the super got through asking questions, he turned to Baldy. The official was fairly beaming.

"Mr. Stevens," he said, "from what we are able to learn, you have been working for the best interests of this company. A brakeman who will tackle a carload of bums single-handed and try to make them unload and ride the trains which are run for passenger accommodation, is deserving of a substantial reward."

Choctaw coughed violently. Baldy squirmed and twisted.

"For this reason, Mr. Stevens," continued the super, "I am having you marked up as conductor."

"Thank yuh, Mr. Baldwin!" breathed the boomer. "Thank yuh! An' yuh reckon yuh might be able to use—" he looked toward Choctaw.

"We'll look after Sellers, too, Mr. Stevens." The super turned to Choctaw. "If you would like to work for us here on the Northern."

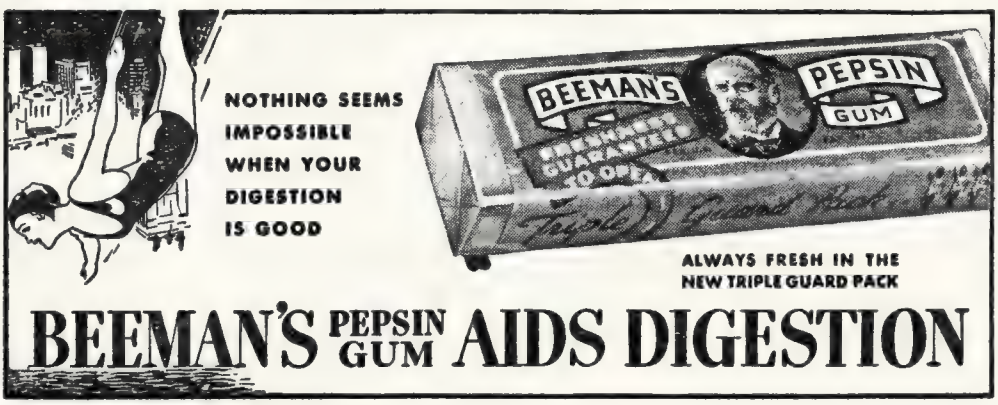
"I sure would, Mr. Baldwin—"

The two men left the office walking close together. A little way out they began laughing, though nothing particularly funny had happened.

"Of all the luck!" Baldy exclaimed. "Who'd 'a' thought you an' me'd become home guards on this here pike?"

"An' bulleve me," said Choctaw, "from here on, I'm takin *no* more—"

"'Bo money!" chuckled Baldy.



The Boomers' Corner

MY story, "'Bo Money," is mostly true. Old-timers will recognize the facts. In the link-and-pin days the standard rate for carrying bums was $1 a division. Many a time I paid it to the pesky brakies. Later, when I got to be a rail myself, I collected it back again. I worked as water boy, shovel stiff, fireman, brakeman, conductor, switchman, mule skinner, night herder, etc. Shortly before the Debs strike of '94 I migrated East. Began on the Long Island as passenger brakeman; then on the N. Y. N. H. & H. as hind man on "The Fruit Express," New Haven Div. In those days, railroad jobs didn't pay much wages, so I operated a clubroom on the side. Yale students as well as railroad acquaintances were my patrons. The clubroom was good for about $100 a week and the braking job only $12, so I quit the road.

But once the iron gets into your blood it draws you back like a magnet. I went to switching—yard brakemen, they were called in the East—in the Harlem River yard of the New Haven. After working for the Jersey Central in a like position, I drifted to Chicago and the Illinois Central; next the "Q," where I first saw a left-hand engine. Then to the good old C. & E. I., which had a standing order to give me a job every time I hit Danville, Ill. It was a tough boomer pike then, with a wreck almost every day!

On I traveled to the Mo. P.; the Colorado Midland; the Santa Fe at La Junta; the Iron Mountain at St. Louis and Van Buren, Ark.; and the Denver & Gulf. Part of the time I worked "under a flag" as Wm. Hardin. I've lived the life of the West when there were no barbed wires, and cattle by the thousands roamed the plains; slept in the open, hobnobbed with real cowboys. There was nothing grander in all the universe than the old Colorado Midland and the majestic Rockies as we saw them then.—FRANK A. HILKER, Box 12, Forsyth, Ill.

* * *

I am now an A. C. L. engineer. One day at Warsaw, N. C., a friend of my colored fireman got up on our engine, which had the hydrostatic lubricators placed lengthwise above the boilerhead but set back of it. The darky visitor seemed fascinated by oil dropping from the lubricator, and said: "Dat's the first time Ah evah saw a drap drap up."

In the big snowstorm of 1911 I ran a U. P. snowplow from Winona, Kan., to Scott City, doubleheading with Bob Harding on the second engine. Some trip! I can hear Bob laugh about it yet. On another occasion we took a train of 13 dead engines from Sharon Springs, Kan., to Denver, with Big Mitchell as conductor. Well, the good old days are gone, all but the memories! Come on, old-timers, write in and swell the Boomers' Corner.—C. F. HUTCHINSON, Box 182, Wilmington, N. C.

* * *

"Raton Mountain" (March issue) and "Rails through the Wilderness" (April) were each worth the price of the magazine. Many a time I have fired or run a 700 or 800 hog on Raton Mountain, which boomers call "Rattoon Hill."

Except for some of Dellinger's, your fiction stories do not ring true. Most of them contain too many guns and wrecks and trains plunging through fire. Too many pretty girls without "it." Doesn't anybody know how to write a good railroad love story? But your illustrated feature articles more than make up for what the fiction lacks.—NORMAN GILLIE, White Fish, Mont.

* * *

THE BOOMER

WHEN there's fifteen men all ailing
On the division called Yazoo.
And each one swears it's lumbago
Or a bad case of the flu;
When the telephone is crippled
By a twister down the line;
Only one Morse wire working
And that not very fine;

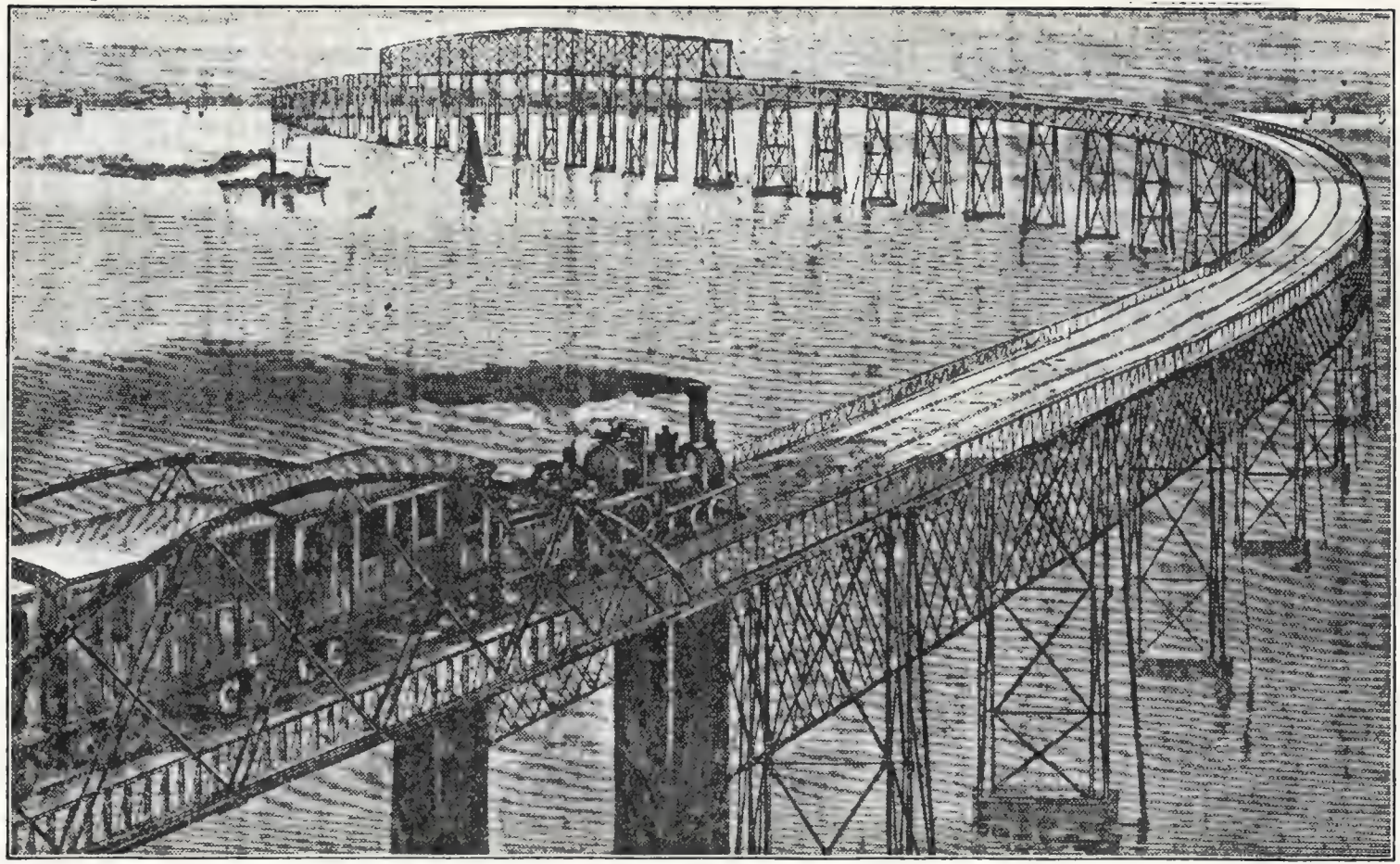
What makes the chief forget his woes
As he looks down at the stranger's toes?
The Boomer!

Who gets the job, though his shirt is black,
With a large rip showing in the back?
The Boomer!

Who rides the fast job out of town
Amid the joshing: "Who's the clown?"
The Boomer!

Who makes the stuff on the old string hum
As home guards hear and call him "bum"?
The Boomer!

—JIMMIE HATHAWAY, Toronto, Canada.



Firth of Tay Bridge, Which Collapsed on the Stormy Night of December 28, 1879

FAMOUS OLD-TIME RAILROAD DISASTERS

(Next Month—An Oil Train Explosion on the Banks of the Hudson)

The Firth of Tay Tragedy

By FREDERICK WESTING

TRAVELERS on the London & North Eastern Railway between Edinburgh and Aberdeen, Scotland, are familiar with the famous Firth of Forth bridge. One of the worst catastrophes in British railway history was responsible for the construction of this vast and impressive engineering marvel.

Some miles to the north, on the same railway line, lies another firth (large river), called the Firth of Tay; there the tragedy occurred on a Sunday night, December 28, 1879, sending a wave of horror over the world. The effects of this disaster were felt so vividly that, years later, when the Firth of Forth was bridged, engineers created the present gigantic structure, safer and more substantial than the old Firth of Tay bridge.

In 1864 Thomas Bouch, engineer for the old North British Railway of Scotland (now part of the L. N. E. R.), first proposed bridging the Firth of Tay, as passengers had to be ferried across. The idea met with a cool reception, however, and the necessary money was not forthcoming.

At last the project was brought before the British House of Lords and favorably received. The bridge was built between Wormit station on the south and Dundee on the north, and on June 1, 1878, it was opened to traffic by the North British Railway.

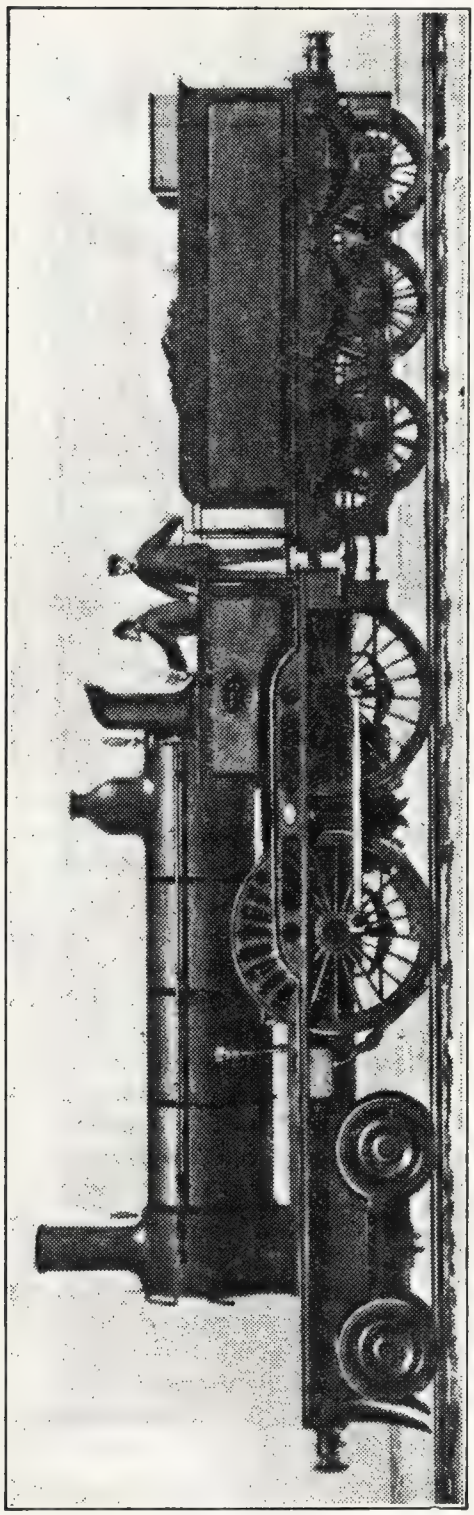
It consisted of 85 spans, was about two miles long, and at its highest point was about 100 feet above the water. A locomotive starting to cross the bridge from either side had to climb a grade which rose steadily, reaching its apex near the center of the river. The town of Dundee was approached by a large sweeping curve. Thus it will be seen that the bridge was neither level nor straight. In fact, both ends curved in huge quarter circles.

A point of great significance is the fact that General Hutchinson, inspector for the British Board of Trade, remarked when the bridge was being tested:

"I would like to have the opportunity of observing a train crossing the bridge during a high wind and note the effect."

On the fatal Sunday night, a year and a half later, high winds and sudden squalls of rain were sweeping across the bridge. The gale reached a velocity of ninety miles an hour. Its intensity may be judged by the fact that 300-year-old oaks near Dundee were uprooted.

The evening train of six cars from



This Engine (No. 224) and Her Train Plunged into the Firth of Tay When the Bridge Collapsed in a Gale of 90 Miles an Hour

Edinburgh, hauled by engine No. 224 (a 4-4-0 type which had been built in the company's own Cowlairs works), left Burntisland on the north shore of the Firth of Forth.

Neither Engineman Mitchell nor Fireman Marshall had evidenced any fear of impending disaster when they reported for duty for this run. Mitchell was 38 years old, and happily married. For eight years he had been in engine service on the North British Railway Co. Marshall was unmarried and had been firing engines for three years.

At a station called St. Fort, two miles south of the Tay Bridge, a stop was made for more passengers. At 7.13 P.M. the train passed the signal cabin located at the southern end of the bridge and started to cross.

By this time the wind was a veritable hurricane. The foam-crested waters raging below the bridge must have presented a formidable appearance to the passengers.

As the train was passing through the tunnel-like latticed girder section near the center of the bridge, an unusually heavy gust of wind caused the sudden collapsing of the cage-like bridge section. *The train, with everyone on board, was hurled into the cold roaring torrent!*

A SECTION hand chatting with the signalman in the southern signal cabin had taken notice of the train's passage after it entered on the bridge. He saw to his horror the three red tail lights descend and disappear into the river. His companion immediately signaled the signal cabin at the northern end of the bridge, but found telegraphic connections broken.

The Tay Disaster Taught a Valuable Lesson. When the British Built This Bridge Across the Firth of Forth They Made It Strong and Massive, Unlike the Flimsy Tay Structure Shown on Page 22

Both of the men were thoroughly alarmed. Leaving the signal cabin, they attempted to walk across the bridge, but the gale's ferocity drove them back. They then ran along the southern shore, hoping for a view of the bridge and its condition.

The rain had ceased by now. Through scurrying clouds the moon appeared, disclosing to their startled eyes *a gap in the long dark structure of about one-half mile in length!*

"My God!" screamed the section hand. "The bridge is down!"

Teeth chattering from fear and cold, the signalman drew his greatcoat closer around his neck. He said nothing. He could not talk.

Both gazed with blanched faces at the ominous break in the railroad structure, that lay blackly under the moonlight. The signalman's lips moved in prayer.

For a moment terror paralyzed the two spectators. Finally they came out of the trance, took counsel together, and hurried to Newport with the tidings.

When the facts became known, world-wide interest was aroused. Investigations and explanations were demanded. The engineer who designed the bridge, Sir Thomas Bouch, and who had been knighted upon its completion by Queen Victoria, came in for a large share of the criticism. Some thought that faulty materials and workmanship might have been responsible. Prior to the bridge's opening, the British Board of Trade had run six heavy locomotives in one solid train at a speed of 40 miles an hour back and forth over it. Observers said that under this severe test insignificant deflection of the spans had been noticed.

It is generally supposed that when the train entered the girder section, the heavy winds, having a larger surface exposed to their fury, tilted the whole train against the structure at this point, thereby breaking the fastenings on one side of the bridge and causing the whole mass to tip over into the frothy Tay.

Everyone aboard the train was

killed. More than thirty bodies were recovered from the river, out of a possible seventy-five, which number equalled the amount of tickets collected at the St. Fort station shortly before the accident. Not until January 1, 1880, was the locomotive found lying thirty feet from the fifth broken pier. She was later raised, reconditioned, and finally worked out her destiny running between Glasgow and Perth.

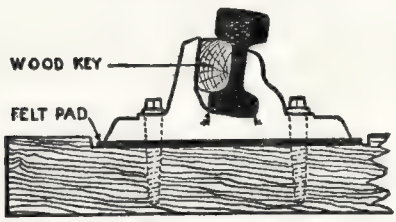
When the locomotive was first raised and examined, it was found that the regulator (throttle) was open, reverse gear in forward motion, and the brakes off, showing that no warning sensation had aroused the engineman before the final downward plunge into the river.

Shortly after the accident occurred, the widow of Engineman Mitchell, who was at her home and knew nothing about it, became alarmed by the violence of the storm and hurried to the Dundee railway station, where she fainted at learning the awful tidings.

Just before the train left St. Fort on its fatal journey, Fireman Marshall's father had inquired of the engine crew if they would attempt to cross the bridge that night. It proved to be the last time he spoke to his son.

This tragedy resulted in a closer check-up on bridge designing and construction the world over, also stricter rules governing the speed of trains while traveling over such structures.

BRITISH TRACKS UNLIKE THOSE IN AMERICA



Cross Section of British Track

REFERRING to the "Royal Scot's" American travels, several English newspapers printed the ridiculous statement that she had to limit her speed to 45 m.p.h. "because American tracks are not strong enough for her highest speeds." Nonsense! American tracks are as strong as, or even stronger than, John Bull's. All the same, recently published figures show that the complicated and costly British type of track construction gives the best results. British track employs a doubleheaded rail, which is tightly clamped into heavy cast-iron "chairs" by means of hard wood "keys," the chairs being screwed down to ties. The rails, or "metals" as they are called in England, are strongly supported by the jaws of the chairs at every tie, leaving about two feet only of unsupported rail between ties. This relieves it of much stress.

In 1931 there were on U. S. railroads 251 derailments due to broken rails, causing nine deaths. In the same year Great Britain had no such derailments. On the 426,000 miles of Class I railroad track in the U. S. A., 37,800 fractured or defective rails were replaced in that year. That is at the rate of one rail per 11¼ miles of track. The only English railway that gives out similar statistics is the L.N.E.R., which allows the highest axle load in the British Isles (about 25 tons being its figure). For 1931 that road replaced only 42 broken or defective rails in its 11,495 miles of track—an average of one rail per 273 miles of track!

Other European countries use the same type of track as America. For the same year the best results were shown by the Paris-Orleans Ry. which had to replace rails at the rate of one per 64½ miles of track. The worst figures were returned by Czecho-Slovakian and Rumanian roads, which replaced rails at rates varying from one per 6½ miles to one per 8¾ miles of trackage.

The chair-supported rails of the British tracks can be changed very quickly if necessary. After unfastening the four fishplate bolts, it is only necessary to knock out 18 or 20 wooden keys or wedges which hold the rail in its chairs, and the rail is ready for lifting clear. The whole process has been done in as short a time as three minutes.—F. H., Liverpool, England.

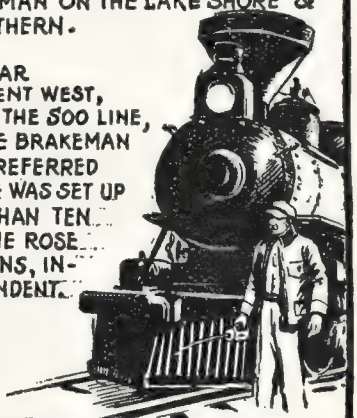
Famous ENGINEERS

DANIEL WILLARD

THE BOOMER PRESIDENT
(LIVES IN BALTIMORE, MD.)

BORN 73 YEARS AGO AT NORTH HARTLAND, VT. AT 18 BECAME A TRACK LABORER ON THE CENTRAL VERMONT BUT QUIT TO HIRE OUT AS FIREMAN ON THE CONN. & PASSUMPSIC (NOW B. & M.). WHEN 22 HE HIT THE BOOMER TRAIL, LANDING A JOB AS FIREMAN ON THE LAKE SHORE & MICH. SOUTHERN.

A YEAR LATER DAN WENT WEST, GOT AS FAR AS THE SOO LINE, WHERE HE BECAME BRAKEMAN AND CONDUCTOR. PREFERRED ENGINE SERVICE SO HE WAS SET UP AS HOGHEAD. LESS THAN TEN YEARS AFTERWARD HE ROSE TO OFFICIAL POSITIONS, INCLUDING SUPERINTENDENT.



WHILE ON THE SOO HE MET GENERAL MANAGER F.D. UNDERWOOD, WHO WENT TO THE BALTIMORE & OHIO IN 1899. UNDERWOOD MADE WILLARD ASSISTANT GENERAL MANAGER OF THE B. & O. WILLARD WAS ALSO ACTING GENERAL MANAGER FOR A SHORT TIME, THEN WENT TO THE ERIE AS VICE-PRESIDENT, ND IN 1904 TO THE BURLINGTON. FIVE YEARS AFTERWARD HE WAS MADE PRESIDENT OF THE COLORADO MIDLAND. IN 1910 THE B. & O. CALLED DAN WILLARD BACK AS PRESIDENT, WHICH HE HAS BEEN EVER SINCE.

Next Month—JOHN H. CAVINS (C. & O.)

Flat Wheel

By DON WATERS
Railroad Machinist; Author of "Engine Failure," etc.

"Highball" Cassidy and "Hot Box" Murphy Had Nicknames They Weren't Ashamed of; but Bill Landon—

ENGINEER BILL LANDON leaned out the open cab window, gazed back over his train standing in front of the passenger depot. He heard the station caller chanting the announcement, "All aboard for passenger train Number Thirty-eight!" The conductor's call came, "All aboard!" A whistle squealed twice in the engine cab.

Bill notched the throttle lever toward him. The drivers slipped a time or two, caught hold and the locomotive slowly pulled out from the train shed. He opened up on the steam. The heavy train behind him slowly gained momentum, clattered through the yards, led on by the swinging lanterns of the yard switchmen and the splashes of emerald and bronze signal lights on jack switch and target.

Out past the yard limit board the big drivers on the 1248 hammered over the last yard switch lead. A whistle board flashed by.

The engineer reached up, caught the swaying handle above his head. *Waa! waa! wa-ho!* a crossing blow vibrated out on the night. Far ahead up the tracks he saw a light change from bronze to green.

Across the cab the fireman called: "Oke, Bill, a clear rail!"

"Oke!" the engineer responded.

Mechanically Bill Landon went through the motions of getting over the road. Yet his mind was not wholly on his work. He was thinking of the scene in the superintendent's office that afternoon. He'd been "on the carpet." The super had called him down for not making the time.

Bill recalled those words. Old John Henderson had said: "Landon, excuses nor evasions don't get trains over the road. Reports for the last two weeks show you were late oftener than any other man on the division."

Bill could feel his face flush when he remembered that the official had terminated the interview with: "You go out on her tonight. If you're late again, you'd better mark off the run and let someone have it who can get over the road. Engineer Jack Grimes was on it for two trips while you were laying off. He made the time both ways. Get a grip on yourself, Bill. I'd hate to think you're a flat wheel."

To the beat of the exhaust and the *clickety-clack* of the trailer trucks beneath him, those words echoed in Bill Landon's mind. A flat wheel, eh? Lost his nerve?

Until recently he'd had no trouble making the time. A shudder passed over the engineer. He lived again the breath-taking lunge, the heavy clang when his engine had left the rails at the foot of Ten Mile Hill, the shriek of live steam and the unnerving crash.

Subconsciously his hand eased the throttle toward him as a grade appeared in front. The exhaust monotonously rose on the night air while the 1248 shoved the steel behind her. Mileposts ran up out of the darkness in front, vanished into the gloom astern.

The fireman, his back braced against the corner post of the cab, flipped open the fire door and, with a practiced sweep, shot scoopful after scoopful of coal into the pulsating, incandescent bed that trembled in the firebox.

BILL knew his work, knew it well. It's a hard schooling a man must go through to attain the right-hand side of the cab and drive a passenger engine. With this run he was beginning to attain his ambition. Life was just revealing its possibilities to him.

His face softened. He thought of blue-eyed Nellie McCoy, daughter of Engineer Ed McCoy. He pictured a white cottage on the hill far above Depot Street, a white cottage with rambler roses around the front porch. Nellie fitted perfectly into that picture. When he'd gotten on Thirty-seven and Eight, a good run, that dream seemed near to realization. And then—

Bill had been away from his home terminal all night, and did not get back until mid-morning next day on Thirty-seven. Engineer Grimes had taken advantage of this, had begun calling on Nellie McCoy. Not that Grimes hadn't a perfect right, Bill reflected. He had felt sure, though, that everybody understood how things were. The way was clear there for him till Grimes intervened.

Bill glanced at his watch. A jack switch flashed by.

"Nine fifty-five," he muttered. "Two minutes ahead of schedule."

He shoved the watch back. Up a long gentle sweep for several miles ahead the right-of-way climbed the side of a mountain. And then a winding grade around the sharp curves, followed by a swift plunge down into a valley and a steep, sharp rise on the other side through Rawlins gap, down

the far side of Ten Mile Hill to cross the trestle that spanned the river.

Ten Mile Hill! The thought rode heavily on Engineer Landon. As each milepost flipped back he dreaded the approaching sharp dip and the hard climb up that hill.

The 1248 nosed around a curve, her headlight swinging in a swift arc. Down at the foot of a long grade Bill saw a bare, burned patch beside the right-of-way—the place where, just two weeks ago, his engine had overturned!

Now was the time to work steam, get up speed on the down grade, take that curve at the foot, and with a sweeping momentum drive up the grade. Faster and faster the drivers spun, the exhaust a blaring medley of noise. The gray ballast of the road bed flowed toward him like a swift running river. Engine 1248 was heading up Ten Mile Hill! Her drivers shrieked complainingly.

Suddenly a spasm of fear seized the engineman. His left hand clutched the throttle, his right swept the brake handle over. Without willing it, Bill had eased up on the steam, set the brakes and slowed his train down. He knew when he did it that he had spoiled his chance for pulling up the slope, and yet it seemed he was powerless to prevent it.

Her pace moderated, the 1248 took the curve easily and started up hill. No use now in that wide-open throttle. Of small avail the reverse lever down in the corner of the quadrant. In the grip of Gravity's mighty hand, the train gradually slowed down. A scant two hundred yards from the top the locomotive choked and stalled, as she had so often in the past half month.

Thirty-eight would have to double the hill again tonight. They'd have to cut the train in two, haul one half up over the hill, cross Rawlins River and set it in the siding on the opposite bank. Then Bill would have to back up, pull the other section across, switch it, couple the two sections together—and continue his run. An hour—at least forty-five minutes—would be lost. He could never make up that time. *Thirty-eight would be late again!*

With a hopeless shrug of his shoulders Bill jammed the throttle closed, set the air to hold his train. He noticed the fireman standing feet astraddle on the steel deck of the cab, leaning on a shovel, looking at him queerly.

Bill's voice was choking. "Buddy, I just couldn't do it. I guess—" he paused— "I guess it's got me!"

TWO days later the local freight was stopped on a siding. Engineer Bill Landon stood in front looking back at the crew transferring sacks of fertilizer from an open box car to a depot platform. He turned his head, listened.

The tremulous blare of a whistle vibrated on the air. Thirty-seven was coming. Thirty-seven was his old run, but Bill had given it up and taken what was open—this local freight that meandered its slow way across the division, stopping every few miles to load or unload small shipments.

Soon locomotive 1248 swept by with a rush and a roar. A flash of mail and express coaches was followed by a string of Pullmans. Bill caught a glimpse of white tablecloths and gleaming silverware through the diner windows. A cloud of dust swirled and eddied behind the observation car. No. 37 had come and gone!

Bill stood in front of his dilapidated little engine. She had no polished brass or nickel trim. Wipers had never

wasted much time on that jacket. The paint was chipped and cracked, the bell and whistle tarnished. It had been a long time since the 103 had been in the back shops, a neglected iron horse on an unimportant run. Bill felt sick at heart when he thought of the fast passenger that had just driven by.

Anger welled up in him. When the 1248 passed Engineer Grimes had leaned out the window. His gloved hand cut a half-circle in the air, swept flat across the bottom. Jack Grimes had put the label on him, "Flat Wheel."

There was no mystery in how Grimes had gotten hold of that. He'd been in the anteroom beside the superintendent's office the day Bill was "on the carpet." Grimes had good ears. He'd heard what was going on, had caught the words "flat wheel." Grimes was not the man to pass up an opportunity like that.

In the days that followed, all up and down the division the nickname was carried—and that maddening gesture went with it. Bill was "Flat Wheel" Landon now. If he stayed on the division the rest of his life, that monicker would never leave him.

He thought of old "Hot Box" Murphy who'd got his nickname from a fast run where he had reached the other end of the division with half the journals on his train ablaze. That was a quarter of a century ago. Hot Box Murphy was an old man now, stooped and gray-haired, due for retirement in a couple of years, and yet the name still stuck to him.

There was "Monkey Wrench" Hanson, who had once settled an argument with a yard switchman by using his monkey wrench. That was back in the days of link and pin couplers. "Highball" Cassidy and "Whistling" O'Malley were two other engineers known by their nicknames. These two fellows had nothing to be ashamed of, but he — Flat Wheel Landon — had nothing to be proud of. Bill wondered how long he could stand the gaff.

When he pulled out of the roundhouse in the morning, the yard switchman who lined the leads up for him, called: "All right, Flat Wheel, roll your hoop and don't double the hills with it today!"

The conductor handed him the orders with a grinning comment: "Here's the schedule, Flat Wheel. I guess we can make the time on it."

Even the supply boy, who put the oil and tools on board, asked him casually: "Flat Wheel, this your tool box, ain't it?"

They little knew how that hurt him. With a great effort Bill repressed his feelings. He realized that if he should ever flare up they would only ride him the harder. Bitterly he thought of how Grimes had spread the superintendent's words. That hurt worse than it did when Grimes had taken the passenger run and made the time each trip since.

FOR two weeks Bill Landon stayed grimly on the local freight. It was a miserable two weeks. The local was no desirable job under the best of conditions, and conditions were bad. A wet spell descended. It rained every day. Bill was alternately drenched as he leaned out the cab window watching back for the brakeman's signals, or steamed dry in the hot, smoke-filled cab while making the run between stations.

Each morning when he went reluctantly down to the roundhouse to get his engine, he dreaded going to the shop more than he had the day before.

Each time he heard that name Flat Wheel the same hopeless anger overpowered him—and he heard it often. He knew that Grimes was keeping it up, getting a lot of pleasure out of his discomfiture.

Once on a Sunday afternoon, he went up to see Nellie McCoy. She would understand. There was no streak of hardness in her. Bill felt a catch in his throat at the memory of her deep blue eyes, her warm winning smile. Even the cool firm feel of her handclasp had a consoling touch for him.

But this time when he rang the bell at her home and inquired for the girl, Ed McCoy brusquely informed him:

"Nellie is out—out with Jack Grimes."

Bill was so sensitive now that he imagined more significance to this than the incident called for. He decided he'd better wait until he was more sure of himself before trying to see Nellie again.

Thus Bill grew to hate his run and despise the grinning faces of engineers around the terminal. Each time he heard the name Flat Wheel accompanied by that circular sweep of the finger drawn straight across the lower side, his wrath smoldered anew.

Passing in front of the depot one night after he had come in from his run, Bill approached a group of engineers standing beside the gate that led across the yards. Drawing near, he saw Grimes turn to them and say something. The crowd chuckled.

Bill started to go by without stopping when Grimes swung his right hand in a circle and announced: "Flat Wheel himself in person."

Landon hesitated in his stride. His pulse pounded, his muscles tensed. Without realizing what he was doing he had cleared the intervening space. His right arm flashed out. He felt the solid impact when it landed.

Grimes spun around, fell to one knee. Bill stood over him. Grimes' expression was one of pained surprise; he was as well built a man as Bill Landon and had twenty pounds more weight. He got up, faced the threatening fists.

Grimes circled Bill, looking for an opening. He was an experienced boxer. There was an exultant note in his voice when he said:

"All right, Flat Wheel, you started this. Now I'm gonna flatten you on all four sides!"

But Bill's ire was an armor sheathed hard around him. He rushed in, took a couple of stiff body blows, landed one in payment. Grimes backed off, holding one hand to his left eye.

Suddenly Bill saw his opponent's arms drop. Bill was just on the point of swinging when he followed Grimes' glance. Up at the window in the superintendent's office he saw two men standing looking out. He recognized them, John Henderson and the trainmaster.

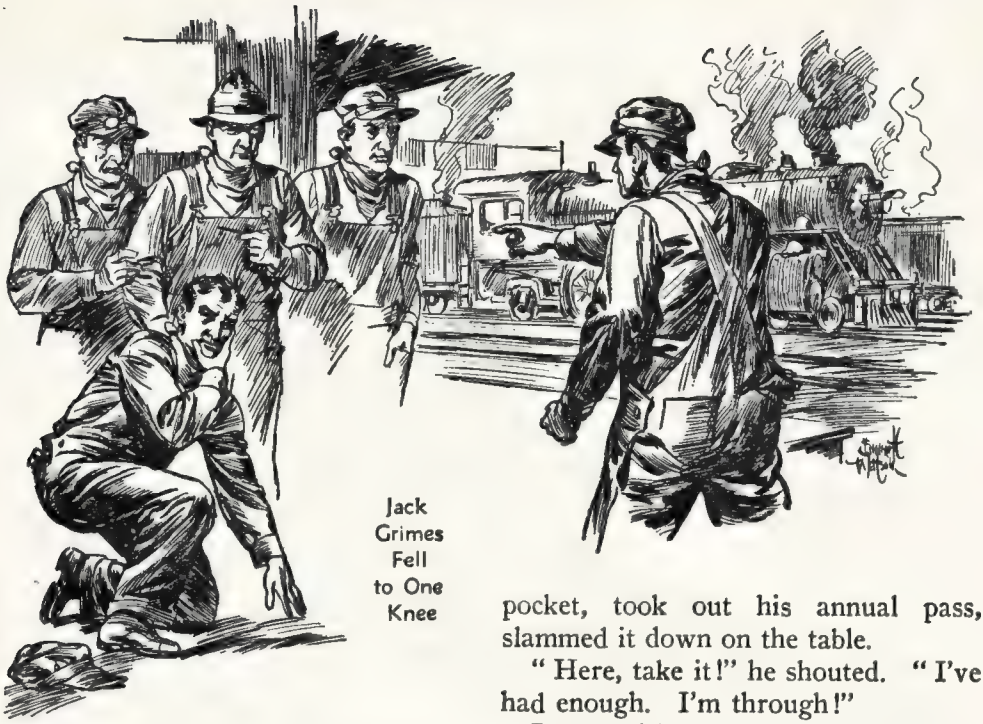
Grimes backed off, stammering: "You know the rules about fighting on company property."

"Yes, I do," Bill snarled. "And if you'll step across the street we'll settle this thing."

BUT Grimes showed no inclination to continue. Bill scowled, then turned to the crowd challengingly.

"I've heard enough of this," he announced. "If any of you fellows want to carry it on, here's your shining chance!"

No one spoke. But even as he looked from one to another, Bill realized that the name Flat Wheel was



Jack Grimes Fell to One Knee

sure to stick now. He had shown them that he cared.

Swinging on his heel, he started across the street. Had he known the remark the superintendent passed to his companion when they saw the incident, he might have felt better.

Old John Henderson winked and said:

"Officially we know nothing about this. There is something to Bill Landon. He isn't taking it lying down. Grimes is quite a scrapper, but Landon sure cooled his coffee then."

Halfway across the street, Bill stopped abruptly. What was the use of going on? He was in bad anyway, and the superintendent had seen him fighting on company property. He'd better take the matter in his own hands, settle the whole thing now.

Back to the depot he went. Going up the stairs to the superintendent's office, Bill pulled his billfold from his pocket, took out his annual pass, slammed it down on the table.

"Here, take it!" he shouted. "I've had enough. I'm through!"

Before either of the two men could speak, Bill closed the door behind him and descended the steps in long leaps.

That evening he went up to see Nellie McCoy. The maid who answered his ring explained she was not in. She and her father were going out on Thirty-eight. Bill walked dejectedly away from the house. He'd hoped to see Nellie just once before he left. Even that was denied him.

He crossed the street to the depot, passed through the waiting room and out under the train shed. No. 38 was made up. He noticed a group off to one side.

Nellie and her father were standing beyond the iron railing of the fence, talking to Jack Grimes. Bill noticed with satisfaction that underneath one of Grimes' eyes a tinge of dark color had formed.

The division superintendent and trainmaster passed by engrossed in an earnest conversation. Probably they

were going out on Thirty-eight, Bill decided, and coming back next morning to make an inspection trip. A lot of new construction had been started on the division; curves were being straightened, trestles built, and several new cuts were being dug to ease the grades and improve the roadbed for fast runs.

Suddenly Bill made up his mind. He might get to see Nellie alone at the other end. With quick steps he followed out through the gates. Nellie McCoy and her father had gotten aboard. Grimes was just swinging up through the gangway between the cab and tender when Bill passed by the engine, crossed over in front, and went up the tracks for fifty feet.

MOURNFULLY the wail of No. 1248's big chime whistle trembled on the night. Rain drummed on the cab roof, spattered off the piled-up coal in the tender, and swirled down against the front end of the blind baggage, drenching the figure of Bill Landon, crouched on the tender sill.

Bill was riding the blind. When the train left the depot, the impulse to ride her out had been too strong for him to resist—the engineer's last ride on Thirty-eight before he left the division behind him!

The rain had started after he got aboard. He had no chance to get off since. Even if he had, he wouldn't go back into the coaches. Tonight he did not want to meet anyone he knew except Nellie. He'd go off to some other road where he was not known, and begin anew. Get away from the division and the maddening horseplay. Leave Ten Mile Hill and the site of the wreck that had gotten his nerve.

Waa! waa! wa-ho! A crossing blow reverberated above the steady beat of the exhaust. A whistle post glistened white in the rain, erect like the marble marker on a grave. It was etched clear and distinct in the headlight's glare, then dropped behind the shaft of light and was obliterated by the darkness.

The 1248 topped a hill. A red glare flared out from the firebox as the fireman opened the door, illuminating the under side of the billowing cloud of smoke that trailed back over the train.

Bill Landon pulled out his watch. Five minutes ahead of schedule. Much as he hated Jack Grimes, he could not help admiring the way that fellow made his run. Grimes was working his engine right.

Bill shoved his watch back, leaned around the corner of the tender and looked ahead. The slanting wind-blown streaks of rain were a shower of silver arrows in the shaft of light that bored a hole through the night ahead.

Bill wished he had not been so hasty about resigning. He had not realized before just how much it meant to him to drive a locomotive. Yes, he had quit too easily. Given another chance, he could have mastered his dread of Ten Mile Hill and overcome the name of Flat Wheel. He knew he could.

Bill clutched desperately at the grab iron on back of the tank. The 1248 was down at the foot of the dip, running fast. Right alongside was the place he dreaded. Bill closed his eyes for a second. Up ahead he heard the exhaust, that had quieted, suddenly lift out of the stack again as Grimes opened up for the hill in front.

With a rush and a roar the 1248 pushed her big drivers against the wet steel and, scarce slackening her pace, shot up the grade, holding her speed on Ten Mile Hill. Easily Grimes was going up the incline where Bill Landon had so often stalled.

No. 1248 topped the hill, began to pick up speed. Bill again looked around the side of the tender. The rain of the past two weeks had steadily raised the level of the river that normally flowed fifteen feet below the crossties. Far in front the headlight's rays danced over a solid sheet of water that covered the rails.

A STARTLED gasp escaped him. Half a mile away, the crossed and bolted beams of Rawlins River trestle were clearly outlined. Bill saw something wrong there—a small thing—just the shadow of a beam sticking up from the structure, jutting out sideways at an angle!

Why hadn't Grimes up in the cab noticed it? Evidently from his position on a level with the headlight's beam, the engineer could not see Rawlins trestle was in bad order.

There was no mistake about it now. That misplaced beam stood out cameo sharp, white against the darkness beyond. The center span of the trestle had been washed away but Grimes was not yet aware of it.

Bill raised his voice in a shout that was lost in the noise of the running engine. Then with a quick movement, he grabbed the end ladder and started to sling himself up over the coal and get into the cab.

Forgotten was the fact that he was no longer an employee of the road. Forgotten was all the misery he had gone through in the past month. The training of twelve years came to the front now. First and foremost, Bill Landon was a railroader.

A squawk from the whistle and the heavy jolt as the engineer set the brakes, stopped him halfway up the end ladder. The exhaust died. The fireman stuck his head out the cab window, lifted his voice in a frantic yell. Instantly he jumped for the gangway, then leaped far out from the engine.

Then Grimes vaulted through the open cab window, leaving his engine and train behind. His own safety came first.

Bill's instinctive, unreasoning impulse was to follow them. But he checked himself. In the crisis his fear and nervousness passed away. He knew just what to do. There was an impending wreck on Ten Mile Hill; his clear duty was to prevent it if possible.

Brakes were set, yet the train scarce slackened its speed. The wheels were locked and sliding down grade on the wet rails. In his haste to unload, Grimes had not opened his sander valve. Inexorably that stored up momentum—hundreds of tons of steel coaches and locomotive — was sliding down toward the broken bridge! If the heavy locomotive went through that gap she'd carry the coaches through after her.

Bill climbed down, caught the cut lever, pulled hard. Knuckles were jammed tight. He held a steady pressure on the lever. The engine jolted. The train took up a little slack. The knuckle opened. No. 1248 was disconnected from her train.

He grabbed the back of the tank and vaulted up, scrambled up over the coal. As he did, the wind sweeping over the top of the cab caught his cap off his head, blew it backward. Unmindful of that, Bill swung himself across the coal boards and down into the empty cab.

GRABBING the sander valve, he twirled it wide open. The engine chattered and hopped on the sanded rail. The smell of scorched

steel was strong. Bill smiled grimly. There'd be more than one flat wheel on Thirty-eight tonight.

And now the train behind was slowing up! He caught the brake handle. With a skill born of long practice, he manipulated the valve so that the brakes gripped the wheels with just enough pressure to hold them without sliding.

The locomotive's wheels began turning, *thump! thump! thump!* heavy, chattering jars when the flat spots struck the rails. The brakes were having their effect now—*but the river was very close!*

A quick glance ahead disclosed that the water not a hundred yards away. A glance back showed him the train, its lighted windows cutting little oblong streaks through the darkness.

The sand on the rails was holding. But Bill knew it would be a close chance if the train halted before reaching the river bank. It was still shoving hard against the uncoupled locomotive. He'd have to stay with the 1248.

An exultant light swept over his face. Flat Wheel, eh! Let them think what they might. In his own mind he knew. Another wreck on Ten Mile Hill, and he—Bill Landon—had stayed at the throttle after Grimes had left.

His hand moved the brake valve again. He peered ahead. The water was right at him. He'd better get off now. But before he could move there came a series of grating pops as though in rapid succession the links of a heavy chain were parting.

Then the ripping, tearing crash of splintered wood, the thud of a heavy body striking hard, the hiss of water in the firebox, a sickening lunge.

Bill felt a rush of water engulf, close over him. He was choking, struggling, his breath cut off. *The 1248 had gone through Rawlins River trestle, and he had gone through with it!*

A sharp blow landed alongside his head. His lungs felt as though they were bursting. His ears popped and crackled. It seemed like ages before he emerged to the surface, swimming. He reached the bank, crawled through the bushes. He stumbled, fell, lay flat on the ground breathing heavily.

After a rest, Bill got up, looked for the train. There it stood, a long string of lights streaming out from the coaches. The front end of the baggage car he had ridden was just a few feet from the river bank.

It had stopped raining. Lanterns bobbed. Bill could hear shouts and yells. His right shoulder throbbed with pain. His head felt light and giddy. His clothes were drenched, his cap gone; water was running out of his shoes. Slowly the man made his way up towards the trestle head, staggering in his stride.

Once he put his hand to his head. There was more than water running down the side of his face. He'd struck the sharp steel edge of the cab when he went out of the window.

Bill was getting fainter with each step. The embankment was a hard climb up to the tracks. He went around the crowd gathered at the bridge head, leaned wearily against the baggage car.

A couple of men detached themselves from the crowd, stepped away from the circle of the lighted lanterns, stopped a short distance from him. They spoke together in low tones.

But Bill did not hear what they said. He was listening to another voice, loud and blatant. Engineer Grimes, with a big crowd around him, was giving his version of the accident:

"Yeah, I saw the bridge was down

just after I topped the hill. I figgered I'd have a hard time making a stop on the wet rails. But I stuck with her, fed her the sand and manipulated the brakes till just before she plopped. Then I unloaded, me on one side, my fireman on the other, just as the 1248 upended and went into the drink."

IN the moving light from a lantern, Bill saw Nellie McCoy standing beside her father in the group around Grimes. So that was what Grimes was telling!

Bill started to go forward to confront the engineer. He took a couple of steps, then stopped as he recognized the two men standing near him: the superintendent and the trainmaster.

John Henderson was speaking: "There's something phoney about that tale. Grimes says he stayed with the engine yet he passed us running from the back end of the train. And that cut lever? Someone lifted it. The knuckle is open. That let the engine get away from her train and go through the trestle alone. Neither Grimes nor his fireman mentioned that."

The trainmaster nodded thoughtfully. "Yes, and something else doesn't sound right to me either. I was talking to the brakeman a minute ago, and he tells me that the sand on the rails only goes a few hundred yards up the hill. If Grimes opened the sander when he applied the air up near the top of the hill, the rails would have the grit on them all the way up."

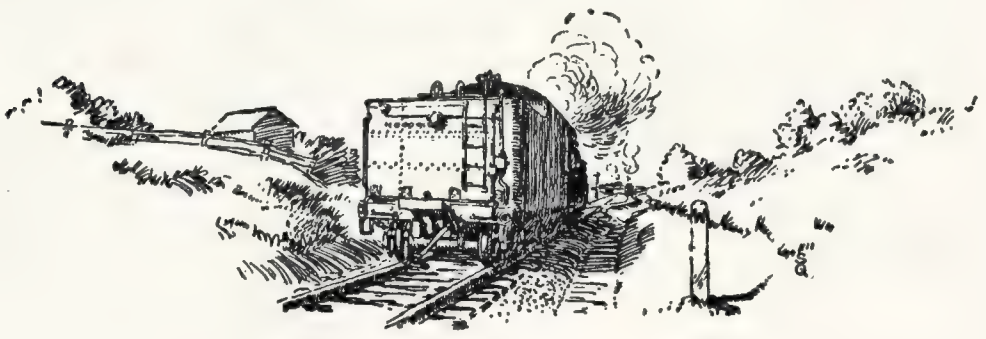
Bill's head was buzzing. There was a loud ringing sound in his ears. Everything suddenly went black in front of him. His knees buckled and he fell full length in the path beside the right-of-way.

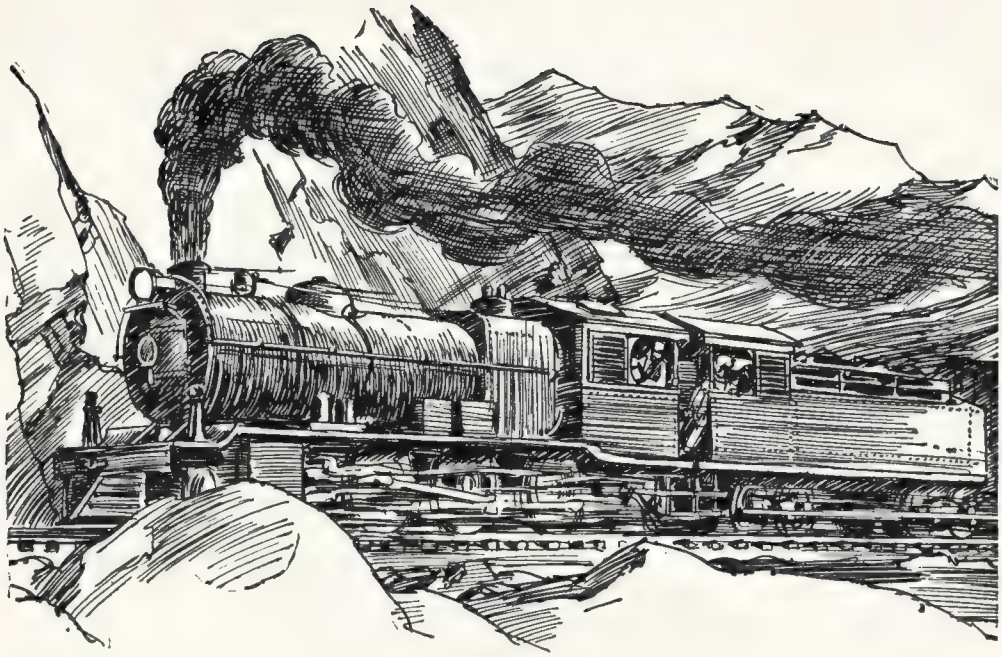
When he came to, he was lying on a stretcher in the baggage car. Superintendent Henderson and the trainmaster were bending over him. But the patient did not see them. He saw a pair of misted blue eyes, deep with compassion. He felt Nellie McCoy's gentle hand under his head as she adjusted a bandage.

A great feeling of contentment swept over the man when he heard her say: "It's all right, Billy. We understand. We found your cap on the sill of the blind baggage."

The superintendent was speaking: "Yes, it's all right, Landon. As soon as you get O.K. again, Thirty-seven and Eight are yours if you want them. How about it—Flat Wheel?"

"Sure thing," Bill whispered with a faint smile. The name did not carry any sting now. He was proud of it. Flat Wheel? He'd carry that name for the rest of his life without shame. Tonight he had made it a badge of courage!





Khyber Pass

By CHARLES FREDERICK CARTER
Ex-Brakeman; Author of "A Road That Couldn't Be Built," etc.

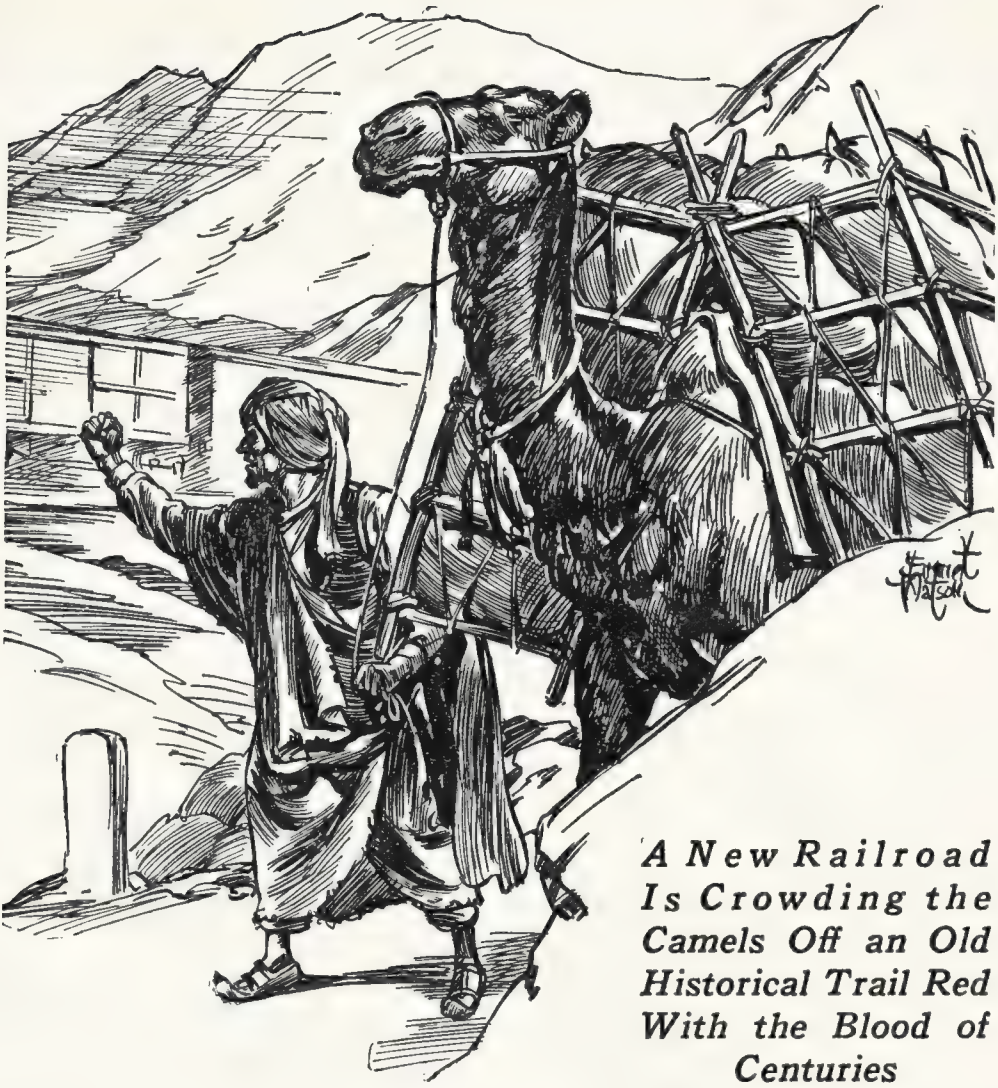
Photos from the India State Railways

NEAR the northern terminus of the Khyber Pass Railway in India is a large sign which says: "*It Is Absolutely Forbidden to Cross This Boundary into Afghanistan.*" This sign is guarded by a black-bearded Afghan rifleman, a crack shot who would not hesitate to shoot his own grandmother if she ignored the deadline.

Khyber Pass is no boomers' paradise. Unemployed railroad men in search of jobs had better keep away. Not long ago a conductor, collecting tickets on the K. P., came to a savage hill man who refused to pay his fare. An argument ensued; the conductor put him off at the next station. Thereupon the passenger drew a wicked-looking knife and within two minutes he had stabbed three men, including the conductor, before he was finally knocked down and tied. All three victims died. The hill man was given a speedy trial and hanged.

As Rudyard Kipling put it in one of his poems, " We took our chanst among the Khyber 'ills." Most of the twenty-eight miles of the K. P. Railway lies in tribal territory beyond the British border—a No Man's Land, wild and rugged, with no law but tribal custom. The inhabitants are bloodthirsty barbarians.

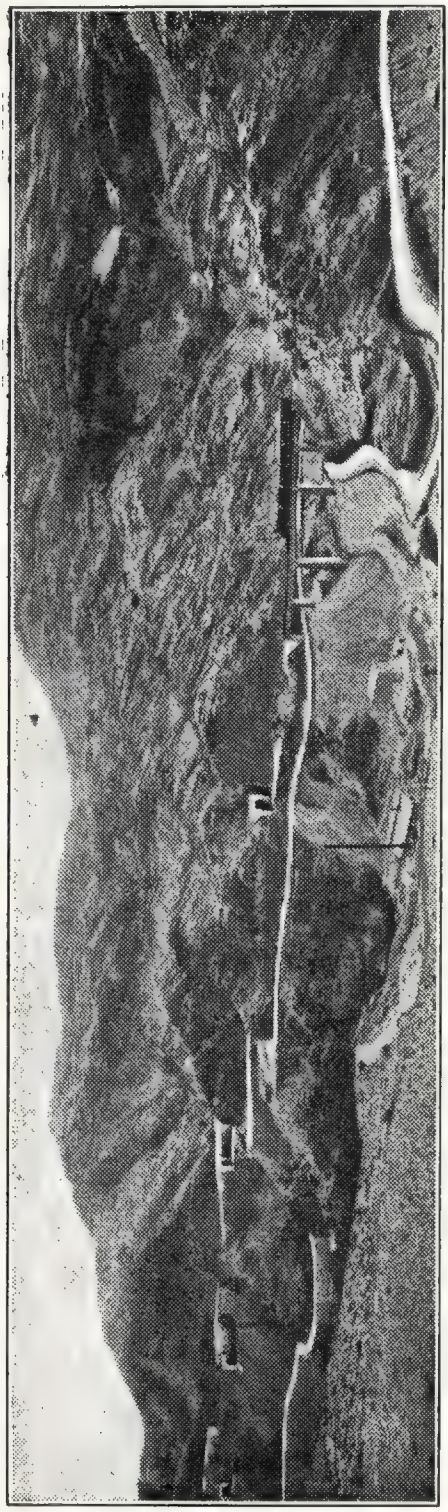
Their principal vocation seems to be carrying on feuds. Almost anything may serve as the excuse. For instance,



A New Railroad Is Crowding the Camels Off an Old Historical Trail Red With the Blood of Centuries

should one Afridi step on another's corn the latter would feel perfectly justified in killing the offender on the spot. Then a surviving brother would kill the murderer at the first opportunity, which would warrant an attack on the village in which murderer No. 2 hung up his hat. The village would be burned and its inhabitants massacred and so on, and so on.

Again, when an Afridi who happens to be the fortunate possessor of one of the rare bits of arable land in the hill country dies, his possessions, including the land, are equally divided among his sons. If the deceased happens to have a large family, the strip of land falling to each heir is too small to provide a living. In such a case one of them hires professional killers to wipe out all the other heirs, whereupon the man who does the hiring inherits the entire plot of land. In one instance no fewer than twenty persons



The 28 Miles of Khyber Pass Railway, in Northwestern India, Include 126 Tunnels, Bridges and Culverts

were slain to get possession of a farm.

All this has a direct bearing on construction of the Khyber Pass Railway. Those delightful Afridis resented the presence of the British. No opportunity was lost to pick off members of surveying and construction parties, and engine crews. Snipers hidden behind rocks above could pick off victims almost at will. In spite of the most determined efforts, parties could not be protected.

ONE of these snipers seemed to be out for a record. Day after day, he kept popping away at the white railroad men and their Hindu helpers. Night after night he slaughtered horses and oxen. In desperation the leader of the party offered a reward of 1,000 rupees (about $335) for that sniper, dead or alive.

Yakub Khan, an enlisted man in the company of riflemen supposed to guard the party, volunteered to get that sniper. He was given leave to do so.

Early next morning a rifle shot echoed among the cliffs of Khyber Pass. A picket reported seeing the body of an old man rolling down the mountain side. Soon after Yakub Khan strolled in, announced he had done his job, and got the reward. The British political agent complimented Yakub Khan on his good work.

The ingenious youth shrugged his shoulders and smiled. "Oh, I don't deserve any credit," said he. "I had no difficulty in finding the old fellow, for I knew all his little ways. You see, he was my father!"

When the Union Pacific was built through a wilderness swarming with hostile Indians, men worked with arms in their hands and soldiers to help out. Even at that, many lives were lost before trains could be run in peace.

The British tackled a similar job by other methods. Surveyors had to get along the best way they could. But construction was something else. It would not be possible to hold men on the job if they were exposed to the rifles of the Afridis. So the job was turned over to the political agent.

With difficulty some of the head men of various little tribes and villages were induced to come in for a parley. Much talk and presents judiciously distributed finally induced them to raise a force large enough to protect themselves and undertake construction of the railroad.

Petty contracts on a piece-work system were allotted to each head man. Then teachers were assigned to show the workmen what to do. They had to be taught how to handle shovels and picks and crowbars and every other detail of grading and blasting.

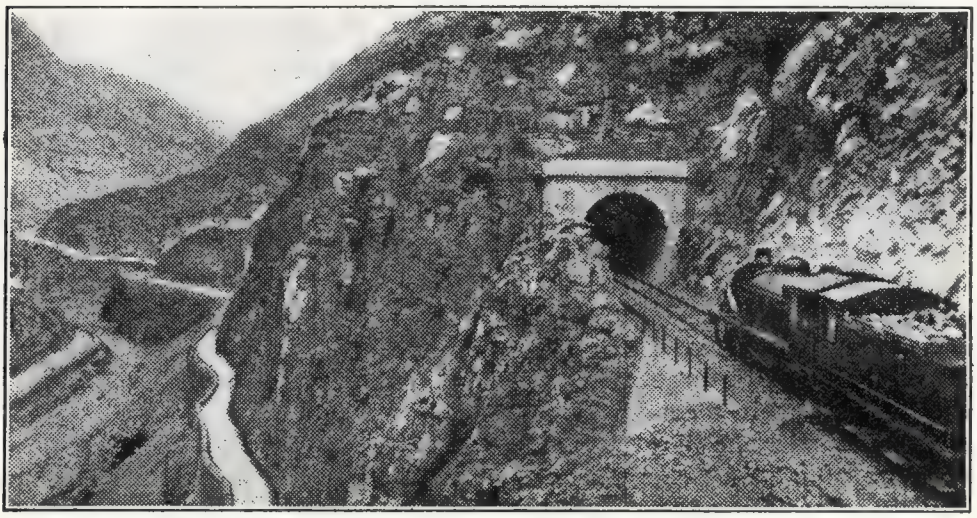
Those barbarians learned their lessons. When pay day came around and they squandered their wages with lavish hands, they were the sensation and the envy of the whole region.

Grim and Forbidding, an Afridi Rifleman of No Man's Land

Thereafter there was no scarcity of labor on the Khyber Pass Railway, though rates of pay were so low as to sound fantastic to American ears.

It would have been cheaper to use hand drillers in boring the tunnels but for the fact that there was not room enough for drillers to work in such confined space. So air compressors driven by gasoline motors had to be set up, just as such things are done in the Western hemisphere.

FIVE years were required to build the road. Finally it was officially opened Nov. 2, 1925. Thereupon the Afridis became so much interested in the railroad they built themselves that it would go hard with any erring brother who undertook to wreck a train not only fired across the railroad but also across the caravan road and the two military motor highways. As the fine was 2,000 rupees for each road, counting each one as a separate offense, that shot was rather expensive. It bankrupted not only the offending na-



One of the 34 Tunnels on the Khyber Pass Line Which Gave British Construction Engineers Plenty of Cause for Worry

or anything like that. You see, it was now a matter of pride to them.

The ex-workmen have constituted themselves into a volunteer detective association to guard the line. For example, the British do not interfere with the Afridis' popular outdoor sport of shooting each other up, provided nobody shoots across the railroad. It would be impossible to enforce such a rule without the aid of the volunteer detectives.

One day an indiscreet native was seen to fire across the road. The offender was promptly arrested and taken before a magistrate. He protested that the evidence was all wrong and asked the magistrate to send a man with him and he would show just where he did shoot.

It turned out that the culprit had

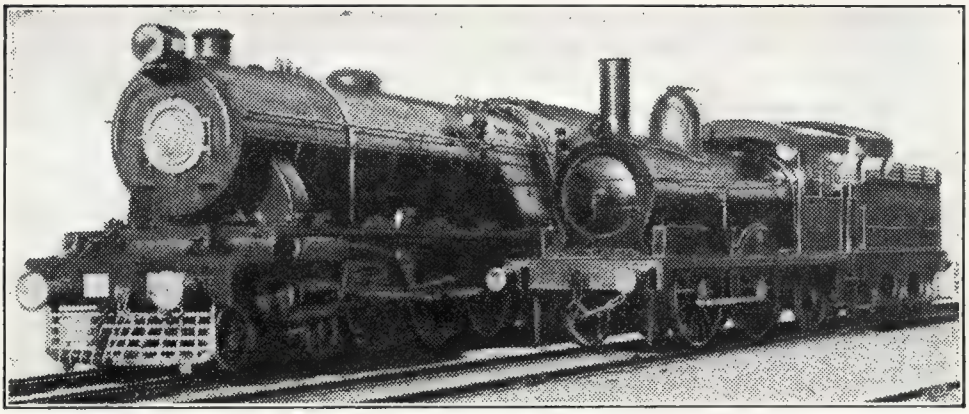
tive, but his entire village as well.

The new railroad is crowding out the camels which used to have a monopoly of transportation through Khyber Pass between Northwestern India and Afghanistan, Turkestan and Persia—taking the hay out of their mouths, so to speak.

A fair average load for a camel is 500 pounds, though some can carry 600 if their drivers are reckless enough to pile it on. But what is 600 pounds compared with 385 tons, the average trainload on that pike?

A full train consists of twenty loads. Every train has two 2-8-0 locomotives attached, one at each end, so that in going through the switchbacks each one is alternately leader and pusher.

Khyber Pass, one link in "the Golden Road to Samarkand," has been



New and Old Motive Power Used Today in Khyber Pass, on "the Golden Road to Samarkand," Made Famous by Alexander the Great Two Thousand Years Ago!

a nightmare and an evil omen. To the British army it has been a pestiferous source of anxiety and bloodshed. It is the only possible route from the North into the plains of India. An entire tribe perished near there in a vain effort to find its way North into Turkestan to escape from its enemies.

Through this pass Alexander the Great and his host descended into India two thousand years ago. Thereafter no fewer than six major incursions swept into India, spreading death and ruin. One was led by the first of the moguls, who established a dynasty and inflicted the greatest curse India has ever known—the caste system.

After nearly a century of intermittent warfare to hold the pass and enforce some semblance of peace, the British set out to make a thorough job of their defenses. The old caravan route was improved and the tribes were bribed or otherwise induced to permit caravans to go through undisturbed on Tuesdays and Fridays.

Next, two motor highways were built entirely separate from the caravan road: one for artillery and heavy motor lorries, the other for high speed cars.

A rebellion was attempted in the Punjab while forces were being demobilized after the World War. Then the British decided that the time had come to build the railway through the pass.

THE railway was built primarily for military purposes, not to deprive camel drivers of a means of livelihood, as some of them seem to think. Every station is constructed like a fort, with barbed wire entanglements. Ticket windows are designed primarily as machine-gun loopholes.

Last of all, two strong forts, impregnable to small arms, hold strategic points. The country is too rough to allow heavy guns to be brought up from the North.

The "Punjab Limited" meets P. & O. steamers at the Bombay dock, making the run to Peshawar, 1,545 miles in 47 hours. Or if you prefer the "Frontier Mail," which goes by another route, the 1,450 miles between these termini will be covered in 44 hours, giving an average of 32.8 miles and 32.9 miles an hour respectively for the elapsed time. That may seem slow as compared with the average of 55 miles an hour for the crack trains between New York and Chicago.

On the other hand, the sleeping cars in India have succeeded in doing something the Pullman Company, in its palmiest days, never accomplished: they have made every berth a lower.

The climate is something else again. Peshawar, a city of 125,000, can count on a hundred cases of sunstroke a day. White folk wear extra thick Cawnpore sun helmets and spine pads and heavy woolen clothing to keep the heat *out!* Over in the Afghan desert when you get down from the mountains beyond the end of the railway it is very much hotter than Peshawar.

The K. P. cost $10,000,000 to build —an average of $357,000 per mile, which seems cheap enough when it is remembered that its 28-mile stretch includes 34 tunnels of an aggregate length of 3 miles, and 92 bridges and culverts.

Starting from an elevation of 1,496 feet above sea level at Jamrud, the line climbs 2,000 feet in 20½ miles on 3 per cent grade to Landi Khotal. Then it descends 900 feet in 5¼ miles to Landi Khana on a 4 per cent grade.

The railway is located on an extremely steep and barren mountainside, where construction of anything at all would appear to be out of the question. Scarcely a spoonful of soil is to be found in the entire distance; for the torrential rains—sometimes 3½ inches in two hours—washed it all away ages ago!

To make the matter even more interesting to the engineers, the rock is not reliable granite, but shale, which can be depended upon to do anything but stay put. As a final touch, in tunneling through this shale, some springs were opened up, reducing the slippery shale to the consistency of mush. In one case, when a tunnel was half bored through, the whole mountainside sheared off as clean as if it had been cut with a knife, taking the outer end of the tunnel with it down into a deep ravine.

Thus there was nothing to do but to revise the line for the approach, then bore that tunnel all over again. Nearly all the tunnels had to be lined and heavily lined, with brick in some cases, concrete in others.

THERE was no room to gain distance by winding around on the mountainside—as in the ascent to Marshall Pass on the narrow gage line of the Denver & Rio Grande, to cite a familiar example. So the engineers had to resort to good old-fashioned switchbacks familiar in the early days of American railroads.

Although switchbacks have been eliminated in America, they will have to remain a permanent part of the K. P. Railway, for there is no possibility of improving the line to get rid of them.

The first switchback encountered in going toward Afghanistan is reached at Medanak, five miles from Jamrud, the southern terminus. From here the train backs up through a tunnel 1,400 feet long and returning crosses over the tunnel to the second reversing station at Shagnai. While these two stations are almost two miles apart by rail, they are actually directly one above the other on the hillside with a difference in altitude of 184 feet. Further along there are two more switchbacks and catch sidings to stop runaways if trainmen lose control.

The switches leading to these catch sidings are always set for the sidings. Only when the engineer of an approaching down-grade train signals that he has control does the switch tender throw the points to allow him to

proceed. The Himalayas not being as spacious as the Rocky Mountains—there isn't room enough for catch sidings in some places where they are needed—so the shorter ones are buried in sand to enable them to stop possible runaways in less distance.

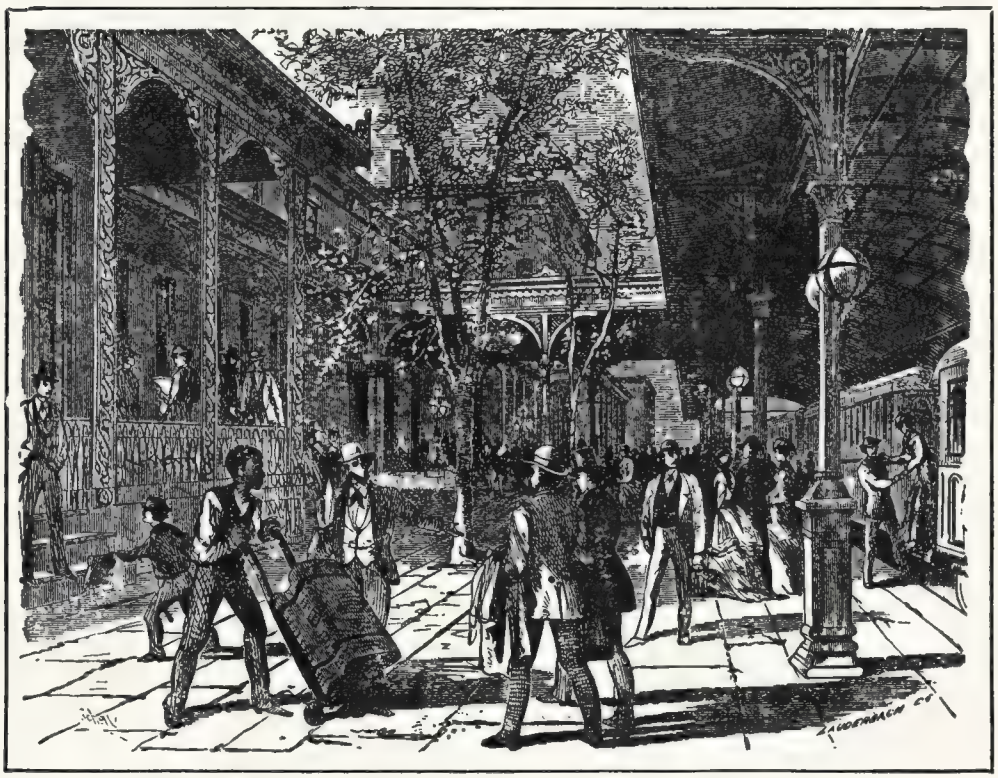
Curves are limited to a maximum of seven degrees, which doesn't seem like much of a kink as compared with American practice, until it is remembered that the K. P. is "standard gage"—that is, Indian standard gage, five feet six inches.

Perhaps these little details may help to explain why British engineers speak of the K. P. Railway as "the greatest technical achievement of half a century." Eventually it may become a link in a vast intercontinental railway connecting Great Britain, Russia and China. Such a line was under discussion during the earlier years of the World War.

From the Hook of Holland to Delhi via the proposed all-rail route would be 5,695 miles, approximately 80 per cent of which is already completed. The greatest engineering project on the proposed connecting link would be a thirteen-mile tunnel under a mountain range in Northwestern India—only one mile longer than the Mount Cenis Tunnel.

With the great advance made in the art of tunneling, a thirteen-mile bore should present no difficulties worth mentioning.

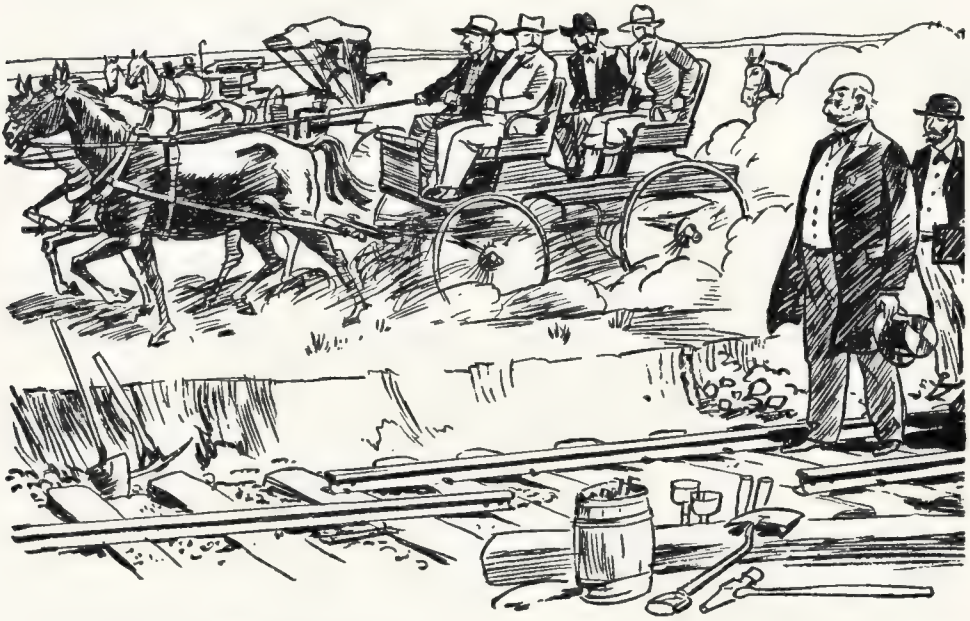
DO YOU RECOGNIZE THIS OLD DEPOT?



A Busy Scene at the P.R.R. Station in Altoona, Pa., Sixty Years Ago

The Santa Fe Trail

By WILLIAM EDWARD HAYES
Ex-Hoghead; Author of "The $50,000 Race," etc.



"This Railroad Cross the Rockies?" They Laughed. "Why, It's a Crazy Man's Dream!"

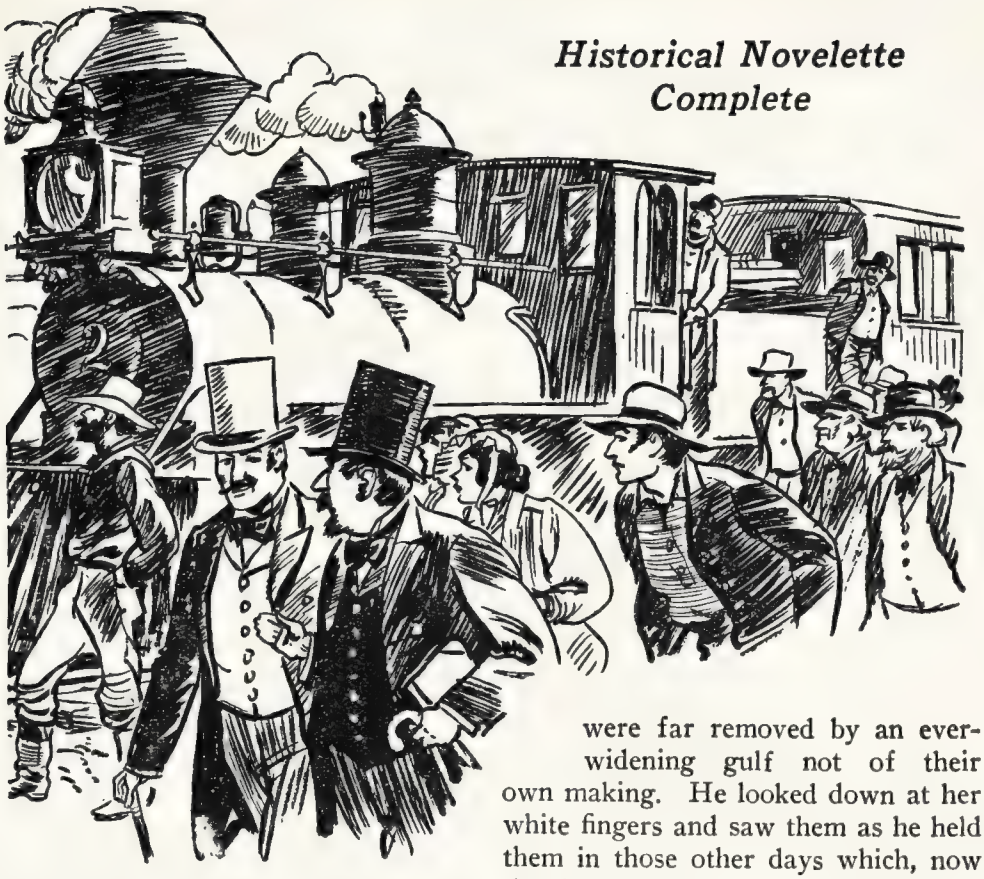
THE approaching wood-burner sprayed sparks from its diamond stack. It coughed from its burnished chest as it attacked the slight ascending grade into the North Topeka yards. Three wooden coaches behind it swayed and rattled and gleamed in the leveling rays of the low sun. The pungent smoke swirled in a chill April wind.

On the wooden platform at the depot a group of men in tall hats huddled and watched the approach of the westbound Kansas Pacific passenger train with anxious eyes. They were grave men, with their hands clasped behind their backs.

Behind the depot a young man stood resolutely in scarred, clumsy boots. His speech and movements were breathless and quick. His shoulders were broad, his chest deep, his hips slim. The tight sleeves of his jacket stopped short of the large bones of his wrists, from which hung long, strong-fingered hands. There was an eager intensity in his frank, wide eyes. His name was Fred Carlin.

The whistle sounded again, nearer now, and Fred swallowed against the lump in his throat, the nameless, formless ache behind the wall of his chest. He glanced eastward, hurriedly, returned his gaze to the half-laughing,

Historical Novelette
Complete



half-sober eyes of the girl. She was unusually tall, almost majestic in the billowy fashions of 1869, and on her curving lips was a baffling smile.

"I can't let you go on like this, Fred," she said. Her voice was low, maddening in its note of quiet toleration.

Fred caught impulsively at the slender fingers that held a lacy bit of kerchief. He held to them and pressed them as if he should cling to them forever. He told himself monotonously that they could not lightly dismiss each other. He stooped to thrust his earnest face down close to hers. They stood close, and yet they were far removed by an ever-widening gulf not of their own making. He looked down at her white fingers and saw them as he held them in those other days which, now that he was twenty-two, seemed a long way back in memory. He had been very young then. Just eighteen, and she barely more than sixteen. That all had been before they brought the news of her father going to his death with the Union forces.

"I guess you're right, Sally," Fred mumbled at length, dropping her hands with an air of futility. "Funny how —we seem to've gotten in—different worlds after all we used to be and mean to each other." Their eyes met searchingly. He tried to see deep down within her, tried to determine what she felt there where her heart thumped against the deep curve of her breast.

"Yes, Fred." Again that

Santa Fe

queer little smile on her lips, that catch in his voice.

Different worlds? He told himself he was a fool to hold on to childish things. Yes, he and this girl — this Sally Webster—had been sweethearts. Just kid sweethearts. He had been the son of a pioneer roustabout. His mother had been killed by Indians during his infancy. His father had died later with his boots on; had gone down drunk with a haze of acrid powder smoke settling over him after the climax of a mad saloon brawl.

Sally had lived just across the reach of lonely prairie acres. Her father had gone to the war between the states, and had never come back. Her mother, bowed from the pitiless drudgery of a Kansas farm, and the long years of serving a ne'er-do-well, failed to open her eyes one morning. There had been the stiff, cold little funeral, and then Fred had held Sally in his arms a long time while her pudgy uncle waited by the dying stove to take her to his house—and to another existence.

Fred blinked. He sniffled and cleared his throat fiercely. He said:

"Well, sure. I guess I understand all right, Sally. Only I'm sorry it's got to be Durfree. I'm sorry it's not somebody else you like."

"Did I say anything about Mr. Durfree, Fred?"

"No, but that's who people say you're going to—marry." He couldn't keep the bitterness out of his tone.

"Be a good boy, Fred," Sally said. "We can be nice to each other when we happen to meet. We don't have to be strangers."

"Sure. All right, Sally. I guess I understand all right. I guess—"

Her fingers pressed his arm slightly, and then she was gone. He took three steps after her, saw Lloyd Durfree separate from the huddle of tall-hatted men to meet her. There was pain behind Fred's eyes as he saw them smile at one another, saw Durfree's white teeth beneath the dark mustache.

HER brass work resplendent, her boiler shining, the fancy little Kansas Pacific locomotive came drifting down along the platform.

Standing by a baggage truck, Fred rubbed his nose red. He worked in this depot at nights, and it was early for him to be about, but he had wanted to steal out that minute with Sally and say just how he felt about things. He had wanted to find out for certain just where he stood with her, and now that he knew he felt a dreadful, crushing loneliness.

Tom Anderson, the North Topeka agent, came over from the telegraph office. He came up to Fred and shook his head.

"You trying to dig your grave?" Tom asked. "I'd think you'd know better than to fool around that Webster girl. Right in front of Durfree, too."

"If there's to be a funeral, it won't be yours." Fred resented the agent's advice.

"Friendly warning, that's all, Fred. Just wouldn't do anything to cross this Durfree. He's a darned powerful man, and if he got it in for you—"

"I work for a railroad, not for a banking house," Carlin said. "He couldn't make it tough for me."

"He could. Don't be daffy, Fred. Railroads and banks are closely hooked up right now. Take for instance this crazy Holliday. If it wasn't for Durfree and that fat-faced partner of his, Alonzo Webster, how far do you think Holliday could get toward realizing any

of that wild dream of his to lay a railroad down along the Santa Fe trail? There's Holliday and Webster coming in now. Lord only knows who they've fleeced to get more funds for his crazy notions."

Fred stared along the platform. The huddle of tall hats broke and there was a movement toward the rear of the last coach.

A full, flushed face came into view. Fred saw the bald head, rimmed with white hair, bared to the wind, nodding vigorously. The breeze ruffled the muttonchop whisker adornment. It was the much-ridiculed Col. Cyrus K. Holliday.

Elbowing his way into the crowd which was growing now, Fred got closer to view the man who proposed to make a reality of steel in the dust of the plains—the promoter and the first president of the Atchison, Topeka & Santa Fe Railroad.

Somebody hurled a question, and the colonel nodded the answer, his face and eyes beaming. Whatever it meant, Fred Carlin didn't know. A man near the steps of the coach sent up a cheer. It was quickly echoed in the throats of others, and then the colonel was hauled down from the coach platform to the ground. The crowd packed more closely.

A man near him said, "Rats! 'E's been away back East agin, foolin' the publick, so 'e 'as. Now lissen to 'im make more promises." The man spat.

"He's a slick 'un," another grumbled. "He ain't a-goin' ter build a railroad."

"Whut ye bring back this time, Colonel?" a bandying voice bellowed. "Ye find some more suckers to buy yer fool stock?"

Fred tried to glare the heckler into silence.

Then the colonel was speaking:

"Friends, I'm overwhelmed." The tall hats were banked about him. His alert eyes darted from one to the other of those who hemmed him in. "I tell you, gentlemen, with Mr. Webster's help, we have pulled a master stroke in our financing. We have everything we need for the moment. And I'm astounded at what Peters tells me. Seven miles of rails actually down! First thing we know we'll actually be running railroad trains. Eh, Peters?"

"That we will," Tom Peters retorted with bluff pride. "We'll run one tomorrow out to the end of track, if you want to make an inspection."

"Inspection!" the colonel blared. "We'll hold dedication exercises at Wakarusa. Give it to the papers, Peters. We'll leave with a crowd in the morning. We'll show them whether the A. T. & S. F. is just a dream."

Fred was in where he could observe the colonel closely now, and there was something of childish hero worship in Fred's young heart. He looked at the man who had been all but jeered down by the vast majority of the people in the town he had founded not so many years before. Crazy?

A man couldn't be crazy and get three millions of acres in land grants on the proposition that he would build a line of railroad west from Topeka to cross the Colorado line, following mostly the course of that famous wagon trail to Santa Fe. It would take something more than a lunatic, Fred reasoned, to get money for the project, with business rapidly stagnating, and the Union Pacific line, building through Ogden, Utah, having a hard time meeting payrolls and keeping steel on the move.

It had been but a few months ago when the first big outbreak of public

opinion greeted the announcement in the Topeka *State Record* that:

> **The child is born and his name is Success. Let the capital city rejoice. The Atchison, Topeka & Santa Fe Railroad will be built beyond peradventure. To no one man in Kansas can the praise be awarded more surely for fostering and encouraging the various railroad schemes now making every farmer richer than he was than to Colonel Holliday.**

Fred had not attended the breaking of ground and did not hear Holliday state that many then living would see his rails dropped over the Rocky Mountains into Santa Fe, New Mexico. There had been jeers to meet that, the papers had reported. But Fred agreed with Holliday.

The colonel passed by him as the crowd began to break up. Fred stepped back. Perhaps, some day, he could ask the colonel to give him a job on the construction, where he could see the steel go down.

HIS eyes clouded abruptly as the smug countenance of Alonzo Webster, banker, eclipsed the face of the builder. The presence of Webster was a disconcerting note. For Webster, when he had taken Sally unto himself, had made it pretty plain to Fred Carlin that the son of a frontier roustabout and saloon character wasn't exactly the proper sort for the Webster recognition.

With a shudder Fred turned and saw, for a moment, Sally's eyes. He walked slowly back toward the depot, his head down, reflecting on his course. He wanted Sally Webster. He wanted to succeed and to get somewhere in this railroad enterprise. It was a new field, as yet. It offered hope to youth. If he could make the grade, and if Sally didn't go and marry this Lloyd Durfree, he might be able to convince her righteous uncle that a Carlin wasn't such terrible stock. There must've been one or two good pioneers.

Again that agonizing sense of hopelessness smote him. His few dollars a month as night telegrapher. His lack of schooling—the fifth grade had ended it. Why, even his clothes, rough and honest though they were, were something to overcome. And then Sally had as much as told him that there wasn't any use in his hoping anymore.

"I say, Carlin!"

Fred swallowed against the lump in his throat. He turned slowly. He faced Durfree, across whose dark features a trace of supercilious smile played.

"Mr. Webster's trunk check, Carlin!"

Fred took the cardboard Durfree shoved at him. He was conscious of Sally's hand on Durfree's arm.

"Yes, sir," he managed to get out, and hated himself for the humility in his tone. Why should he be humble in the face of this young dude?

"I've ordered a cart to come round for the trunk, Carlin," Durfree said. His tones were smooth. "You will please see the driver gets it."

"Yes, sir." Fred's eyes remained steady as he saw Durfree half turn from him, take a step, hesitate and turn back. He saw the elevated brow, the thumb and forefinger of a gloved hand in a waistcoat pocket.

"That's a good man," Durfree said in the tones of a master to a menial. His fingers came out. His thumb flipped.

A silver disc described a whirling arc. A coin bounced on the boards at Fred's feet, spun, fell over. A twenty-five cent piece.

For a long, blind moment he stared

at the coin. Durfree's swaggering back was going from him. Fiercely his boot came back, aimed and executed a kick. The coin bounded across the platform boards.

The Prophesy

A CROWD of people began to gather early in the vicinity of the Atchison, Topeka & Santa Fe's barn-like depot structure off the main section of Topeka. It was to be the first official celebration of the railroad's progress.

In Washington, the day before, the senators had said all sorts of things about the Union Pacific management. Stewart, the gentleman from Nevada, had expressed himself in no mean terms. He urged the passage of a law fixing a severe penalty for those caught forming railroad stock pools to the detriment of the public.

In the seclusion of his office at the back of the Webster banking house, Durfree pointed a slender, manicured finger at the Washington dispatch concerning the senatorial indignation.

"It looks, Alonzo, like somebody will have to bring some pressure to bear on these gentlemen," Durfree said, his thin lips curling. "Very much so, my friend. Otherwise, we might be hampered a little."

"Eh?" Alonzo Webster looked up from the perusal of some letters. "Eh? Oh, yes. Yes. Quite right, Lloyd." He stared at the wall blankly, his pale eyes expressionless. Then, very suddenly, "Sure this scheme of yours for getting full financial control of Holliday's outfit is water-tight, Lloyd?"

Durfree's grimace was sufficient for an answer.

"Water-tight!" Durfree nodded in complete self-satisfaction. "It's not going to be easy in the long run, Alonzo. Not a bit of it. Colonel Holliday is no man's fool. We both admit that. We have to play on some of his associates. But if we handle ourselves from now on as we have done this far we should have no worries."

"Probably not," the pudgy banker admitted. "I have Holliday eating out of my hand. No question about that. He knows he never would have got the money to go ahead without my efforts. Now, Lloyd, if we can gradually buy out this road after it is almost worthless—"

Durfree smiled.

"Just look at it," he said. "Here is a railroad. We sell, or rather help sell its stock. The railroad will get just so far. Weather, storms, labor troubles, lack of this and that and the other thing. You know the story. The stock will go down. We buy in secretly when it is down. We kick the colonel over the side, and follow a different route from the Santa Fe Trail. We can get up into the Kansas Pacific Railroad's territory. If we handle it right we can make ourselves the railroad power of the West. Absolutely. But we have to go slowly and quietly. Not this year or the next, or the next after that."

"Right," Webster puffed. "Absolutely right, Durfree. If I had a head on me when I was young like you have . . ."

Durfree leaned over Webster's desk.

"A little personal thing, Alonzo."

"Eh?"

"Sally." Durfree looked at his polished nails. "This young upstart of a Carlin. I think he's either been meet-

ing her, or trying to. If you'll speak to her, Alonzo. Just remind her of her duty to you." He raised his eyes, elevated his trim shoulders.

"Preposterous," Webster protested. "Meeting Carlin, or seeing him! I say it's preposterous, Lloyd."

"I'd speak to her nevertheless," Durfree insisted quietly, significantly. "There's still a lot of her father in her — an independence that's not so good for a woman." There was greed in his eyes. His smile was thin.

"I'll speak to her," the stout man responded nervously. "Indeed, I will."

EYES hollow from loss of sleep, but burning with the zeal of youth who stands in the shadow of a great moment, Fred Carlin boarded the first excursion train ever to operate over Atchison, Topeka & Santa Fe rails on a bright April morning following the return of Colonel Holliday and Banker Webster from the East.

He had been up all night on his job at the Kansas Pacific depot, but he felt no sense of weariness. The platform was crowded. Women and girls in gay gowns and bonnets. Young men dashing here and there through the people. Older, graver men in their tall hats. Children getting lost underfoot. There was congestion around the little 4-4-0 locomotive, a sight to see, with her brass gleaming and her pop valve spilling a feather into the clear atmosphere.

Fred saw Tom Anderson, his boss, making his way to a coach. He saw Colonel Holliday in company with Durfree, Webster and Superintendent Peters. Sally, with two other girls, followed the four men toward the rear.

Finally the engine whistled importantly, and the crowds backed up along the track. The people on board all tried to squeeze into the windows.

There were joyous calls, deep bellows, shrill cries.

"Hennery! Git Algie back from them theer cars!" "See ya in hell, Frank, if the derned ol' thing don't stay on them irons . . ." "Me? I only got one life to give to the advancement uh science . . ." "Yah! If he ever gits to Emporia . . ."

The engine bellowed in her stack. Sparks and pungent wood smoke. The whistle again, loud and triumphant . . .

The end of track was exactly seven miles out. The excursion reached that point within thirty minutes. A Topeka *State Record* reporter wrote:

> **Here we were steaming over the prairie at fifteen miles an hour in the utmost safety and comfort. Colonel Holliday was like an excited boy quite thrilled over a new toy. Not that the A. T. & S. F. R.R. is by any means a plaything.**

The crowd were reluctant to leave the passenger cars and transfer to carriages, but the jubilation continued as the change was made and Fred found himself riding with a bearded man who chewed a great deal of tobacco and said almost nothing.

Five miles over the dusty wagon road, the Santa Fe Trail brought the excursionists to the goal set for the day —Wakarusa. The depot there had been completed and the grading was all but done right up to the gravel platform.

"Looks like you'd know enough to stay home and sleep," Tom Anderson said as he came up to Fred's side. "Don't know what I'm doing here, unless it's just to get another good laugh out of the crazy colonel."

Before Fred could retort, Superintendent Noble, the Kansas Pacific boss at Topeka, came between them.

"If anybody asks me," the super said, "I say it's a good piece of railroad building as far as it goes."

Fred followed Anderson into the mob assembling around the temporary rostrum. They worked their way down front. Knowing everybody present, Anderson shouted robust greetings, slapped broad, suspendered backs.

Superintendent Peters, speaking first, promised the people the railroad would continue building west at the rate of a half mile a day.

Anderson gave the superintendent a couple of lusty guffaws.

"Yeah! Half mile a year, you mean!" somebody shouted from the back.

The superintendent glared and backed down. A congressman with a saintly mien praised the colonel's vision with much flowery oratory.

"We wanna hear the colonel speak," a farmer bellowed. "Not you. Put the colonel up."

"What's he gonna do for farmers?" another chimed in.

WHEN the noise became too great the congressman backed down and the colonel came up to the platform.

He bared his head to the warm sun. His ruddy face beamed. He began to speak in an intimate tone that left no impression of studied oration. Only after some minutes, when the story of the Santa Fe rose dramatically, did the colonel's voice begin to show the emotion he felt.

Facing the southwest, the colonel suddenly brought up his arms outstretched on a line with his shoulders. He extended his palms over the people, crossed his arms to form an X.

Fred, like every one else, stood hypnotized. He was conscious of the hammering of his heart, the pumping of the pulses at his temples.

"Fellow citizens," Colonel Holliday continued, holding his arms as he had crossed them, "imagine, if you please, my right hand as Chicago and my left as St. Louis. Eventually the railroad we contemplate will reach these two cities and, crossing at Topeka, the intersection, will extend to Galveston and the City of Mexico on the South, and to California on the West.

"The increasing tide of immigration will flow along these lines of railway and, like a mighty ocean wave, will advance over the Rocky Mountains and down on the Pacific slopes."

For a long moment after this pronouncement breath seemed suspended. And then, as the colonel's arms came down, a wave not at all like the one of his solemn prediction, manifested itself. It was laughter, rude and coarse and unrestrained.

"This little dinky five miles of track! Haw, haw, haw!"

Fred, burning under resentment for such indignity, whirled about. Ignorant jackasses!

A figure beside him had dropped into the dust. He looked down and saw none other than his station chief, Tom Anderson, w r i t h i n g in hysterical laughter.

"Oh!" Anderson cried, holding his sides. "Oh! Oh! The damned old fool!"

Fred grasped his friend by the shoulders, tugged at him.

"You know better—"

He got out no more. Somebody behind him yelled, "Listen to this upstart, tryin' to hush up Tom!"

"Gutter trash!"

Fred knew Durfree said it. The crowd of men was pressing close in against him, but he was able to turn his head half about long enough to see the twisted, supercilious lips.

Goaded now until reason was tot-

tering, still hot with indignation, Fred slammed out with his doubled right fist. The knuckle bones grazed a sharp, unshaven chin in passing, and lost some of their power as they smacked Durfree's cheek.

Fred did not land another blow. Hard fists pounded him, drove him to his knees, and then he heard Tom Anderson's voice, and enough space was cleared about him to enable him to stand. He came up weakly, his head paining, his hat gone.

"Listen, Fred," Anderson bellowed above the clamoring. "Serves you right. If you didn't need your job so bad, I'd turn you out now."

"You won't ever get a chance to turn me out," Fred retorted. "I quit. Now."

"Good riddance!" Anderson said. "If you want to go with that old fossil, go ahead! When you get enough come back. I might need you to sweep out!"

Fred caught Sally Webster's eyes. They caused him to recoil sharply. He read scorn and disapproval in them. A voice interrupted him.

"Young man, I don't know your name."

Fred's lower jaw dropped in astonishment. The colonel himself stood before him. His hand was on his shoulder. Fred mumbled, "Carlin, sir. Fred Carlin."

"Operator, you said?" the colonel asked. "If you'll see me tomorrow . . ."

Steel in the Dust

COLONEL HOLLIDAY smoked a cigar slowly. He rolled it between his lips and studied the tall, wide-shouldered young man who sat erect in the wooden chair across from him.

Fred was conscious of the scrutiny.

"Fighter, all right," Superintendent Peters said. "If Tom Anderson hadn't stepped in when he did, we might've had a funeral. You owe your life to Tom, young feller."

"I—just lost my temper," Fred admitted.

"We got to have fighters," the super retorted. "We're heading into country that's never been tamed yet. How much do you know about the mechanics of the telegraph?"

"I've made it a study," Fred said.

"Can you string wires an' install instruments? Set up the works?"

"Yes, sir."

"Good enough. I'll get you a gang. Four men an' yourself. You'll have to use a pick an' shovel, too, but you got shoulders. You put in the poles. Then you hang the wires on 'em. Right at the moment you happen to be the A. T. & S. F.'s first telegrapher, lineman, an' superintendent of wire service. The lord knows how much pay you'll get. Let's go over to the store room an' check the supplies."

At noon that day, with his few belongings packed and in his canvas bag for his move out to the bunk cars along the line, Fred approached the main street. Suddenly he saw Sally Webster come suddenly before him at a corner. He caught his breath. She averted her eyes.

He took a dozen steps, reached her side.

"Just to say good-by, Sally," Fred mumbled.

"I know quite enough, Fred." She still would not look at him. "Your performance yesterday. Making a public spectacle of yourself just like—like—"

"Like my father used to do, I sup-

pose," Fred cut in bitterly. "Runs in the blood, I guess. Oh, well!" He looked at the toes of his boots. "If that's the way you feel about it—"

The flush of quick anger was hot on his cheeks. He took a dozen resolute steps when a sense of sudden shame crowded in hard upon his anger, and he stopped suddenly. He realized that for the first time in his life he had raised his voice in anger to Sally Webster.

Fred valiantly strove to swallow the fullness from his throat, and turned to retrace his steps and apologize. He paused in the middle of his stride.

Sally Webster stood in front of the post office. Lloyd Durfree loomed over her, his tall hat raised.

For a slight fraction of an instant Fred's eyes locked with the disdainful glance of the young financier, and then Durfree's swaggering back was to him, and Sally Webster was moving majestically away on Durfree's arm.

FORTUNATELY the four men on Fred's gang were under twenty-five. Had they been older the zeal of their foreman would have worn them down before they'd reached the first mile post. As it was, they kicked in with a will. They seemed to like him, and his enthusiasm was contagious.

The result was that by the second week in May all poles were erected, lines hung and instruments cut into the little Wakarusa depot, beyond which the main track now extended at least a mile.

On the evening of May 11th, having made arrangements for an operator to be borrowed from the Kansas Pacific for test purposes, Fred sat in the Wakarusa office and rapped out Topeka's call letters, "PK." It was shortly after six o'clock. The office was crowded with sweaty track layers, boisterous gang foremen, booted field engineers. They huddled over the table as the chatter of the brass broke through the expectant hush.

"PK, PK, PK, WA." Fred's fingers were on the rubber button of the key.

"I, I, PK."

At the snap of the answer Fred turned to the waiting men.

"It works!" he yelled.

Centering his attention to the instrument, he described to the operator at Topeka the excitement.

"If you think that is excitement," the Topeka man tapped back, "you ought hear what came through while ago. Dispatch says Union Pacific hooked up with Central Pacific at Promontory Point, Utah. Drove golden spike. You getting all this?"

Fred didn't even take time to answer. Leaving the key open he jumped to his feet, faced the puzzled group.

"They've done it," he shouted. "The U.P. They joined it up in Utah and now they'll be running trains all the way from New York to California. We've got to make tracks fast if we ever catch up with that outfit."

"It'd be nice to believe," a foreman of track layers boomed, "an' I wish it might be so, but I ain't figgerin' any of us livin' here'll ever see the day this railroad gets to the Colorado line."

FRED and his gang plugged along with the line of construction so closely that when June 17 came around and the rails were within "hollerin' distance" of the little Kansas town of Carbondale, there remained but two miles more of wire to string before the Carbondale depot could be cut in.

Bursting with excitement over the progress of the line, now almost seven-

teen miles west from its starting point, Holliday called for another big excursion, and 200 people journey down to the end of steel. On the 22nd the last rail was laid to the Carbondale depot.

It was on the afternoon of the Carbondale excursion that Lloyd Durfree came into the banking office in Topeka, tossed his hat on the table, strode savagely up and down for a moment, then whirled on the perturbed Alonzo Webster.

"Well?" Webster ventured, though it was apparent from his eyes that he already knew the answer.

"That girl's nobody's fool," Durfree snapped. He halted and hitched his thumb in his vest. His lips twisted. "Sometimes I can't fathom her. She can be innocent and coy, and yet there is something going on back of her eyes that—well, it's a good thing I'm a man of great patience, Webster. If I weren't, God help you and Sally Webster both."

"She's still nothing but a child, Lloyd," the puffy Webster defended. He averted his eyes. "After all, you can't expect a girl her age to rush right into marriage."

"I'd give a pretty to know if it's that Carlin fellow," Durfree broke in. "I've been watching her for some signs of change in her since he went away, but if she feels anything at all about his departure, she's clever enough to keep it damned well concealed. Have you noticed anything?"

"Why—no." It was obvious that Webster was confused. Durfree looked at him closely. Was he lying? Durfree considered his partner with a smile of contempt.

It was true that Sally was young. Durfree could wait a while longer. He could wait until his personal wealth had pyramided considerably. He wanted every cent he could amass because it was quite possible that one of these days he would have to decamp quickly. He wanted to be able to take Sally Webster with him.

He considered Webster and turned from him in disdain. He could get rid of Webster easily when the time came. He had worked the weak and flabby banker into a bad hole by leading him into illegal speculations with the bank's funds. By each transaction Durfree had profited privately without Webster's knowing about it. And now, with all his own funds tied up, to say nothing of Sally's trust, Webster was completely at Durfree's mercy in keeping the bank open at all.

"If it is Carlin," Durfree said suddenly, with a definite threat in his voice, "that's making her so damned aloof, I can soon take care of him. You find out, Webster. You watch her, and you let me know if she's writing to Carlin, or if he's communicating with her in any way."

"I'll find out," Webster mumbled. "But I tell you Carlin doesn't even enter into her thoughts. If she seems a little distant—well, hell! She's young."

WHATEVER the present state of Sally Webster's thoughts, Fred Carlin was giving plenty of consideration to her. In those lonely days and nights, as the steel pushed over the plains, and the telegraph followed the course of progress, the vision of that last day in Topeka could not be dispelled from his mind. He condemned himself for being harsh with her. He was a fool to let his temper get the best of him that way. He would, at the first opportunity, go and tell her.

The first opportunity came when, on

the afternoon of the 22nd, a message flashed over the wire into the Carbondale depot summoning Fred back to the Topeka office. It merely read that he was to return on the work train which would put him back in town by 3.30.

Superintendent Peters was chewing a cigar in the executive office over the depot. He growled a greeting at Fred, waved to a chair at the rough pine table. Several sheets of papers, covered with figures, were spread before him.

"You know this track as well as I do, Fred," Peters growled. "Maybe you can help on this schedule. We'll open service in five or six days now. Let's get our heads together on the time and the connections. You know 'em all."

The two worked over the schedule until well toward six o'clock. It was then that Fred tossed over his final draft to the boss who eyed it sourly, pulled at his mustaches and scowled.

"Give it to the papers," Peters finally said. "For use tomorrow."

Alone under the dim oil lamps in the gathering gloom, Fred's eyes traveled over the first timetable the Santa Fe had ever drawn:

ATCHISON, TOPEKA & SANTA FE RAILROAD TIMETABLE

* *

Superintendent's Office, Topeka, June 23, 1869.

The above railroad will be open for business on Monday, June 28, 1869 between Topeka and Carbondale, seventeen miles, at which point trains will connect with stages for Burlingame and Emporia. Trains will run daily and Sunday as follows:

Mixed train leaves Topeka at 6:15 A. M. arriving at Carbondale at 7:45 A.M. Passenger train leaves Carbondale at 10:10 A.M. and arrives at Topeka at 11:30 A. M. to connect with east and west trains on the Kansas Pacific. Returning, leaves Topeka at 1:00 P. M. and arrives at Carbondale at 2:00 P. M. Mixed train leaves Carbondale at 4:00 P. M. arriving at Topeka at 5:45 P. M.

T. J. Peters, Supt.

Fred took a sheet of note paper, bit on the end of his pencil, and then hurriedly his fingers began to write.

"If you will just let me have a few words with you," he scrawled beneath the "Dearest Sally" salutation, "perhaps I can make you see just how deep my feeling toward you is. If I could know that somewhere at the end of the long old road you would be waiting for me . . . I send this by a messenger to whom you might give reply."

The messenger who carried the timetable announcement to the newspaper offices was entrusted with the missive to the Webster house.

Fred walked the floor under the oil lamp. His palms were moist from being hard-pressed. Perhaps he should have just gone up to Sally's.

It was after seven when the messenger returned. Fred met him expectantly at the top of the stairs. The lad had his hands in his pockets.

Fred waited until he had entered the office and removed his cap. The boy walked about, whistling. Finally, Fred could stand it no longer.

"Told you to wait at Webster's for an answer to the note I sent there," he said. "What've you done, lost it? Or did you ever go near the place?"

"I give it to the man—"

"Man! What man?" Fred seized the lad.

"Who come to the door," the messenger retorted. "Her old man, I guess it was. He come to the door. I handed in the note. I said it was for Miss Sally Webster and I was waitin' for the answer."

"Well?"

"He come back in a minute. He said

there wasn't no answer. He gimme a two-bit piece."

"And you didn't see Miss Webster at all?"

The boy blinked. "Naw. Just him."

Into the Wilderness

THROUGH the hot Kansas summer, when the sun burned the plains brown and the roving herds of buffalo moved nervously into the river bottoms for what grazing they could find, the Santa Fe project pushed its steel. The financing was slow, and materials were often held up.

The half mile a day promised by Superintendent Peters slumped off until there were many days in which not one inch of track was laid.

Fred stayed with the end of steel and took turns with the graders to forget the pain in his heart. Visions of Sally were with him all too much, especially in the long wilderness nights, and by the time October came around he began to fret over the slowness of the railroad's progress.

He saw an occasional newspaper, but he stayed away from Topeka. There was no particular reason why he should go into headquarters, and he reasoned that the farther away from Sally he stayed the better off he'd be.

Then the cold and the bad weather further hindered operations, and in early December a heavy snow blocked everything.

Under the enforced idleness, Fred's thoughts of Sally Webster became more and more haunting until, just before Christmas, he decided he would make one more attempt to hear from her or to see her.

He wrote her a long letter, described in detail the progress he had made and insisted that if she but said the word he would be in Topeka as fast as an engine would carry him there. The railroad, by now, was twenty-eight miles from that point or a few minutes less than two hours of travel. Just a short time ago it was a good five hours by stage.

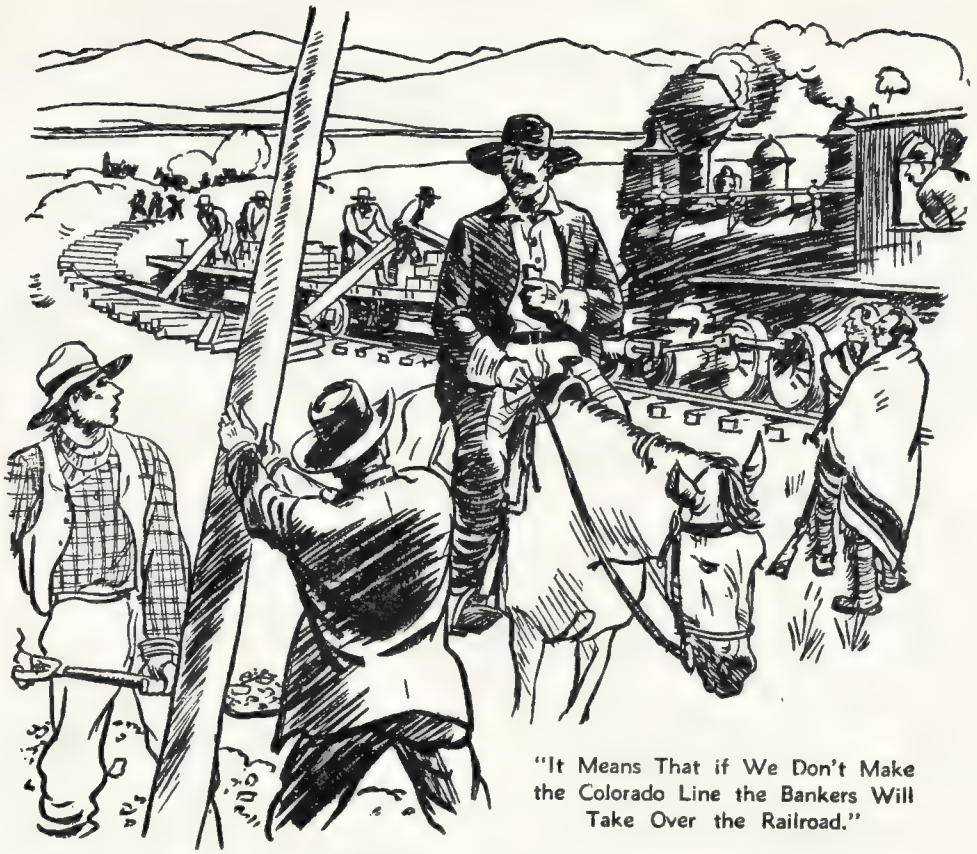
The year 1870 had turned, and construction was going forward again, when Fred's Christmas letter came back to him, unopened. He stared at it dully, gripped the edges of the envelope between his thumbs and forefingers and tore it into shreds.

FRED CARLIN did his best to forget that he had ever known a girl named Sally Webster. Each day the end of the wagon route from Santa Fe was pushed back a little farther into the wilderness.

Service was extended through to Emporia by August of 1870. When Newton was reached another year had ticked off the calendar, and the A. T. & S. F. boasted of 137 miles of completed railroad, over which two trains on regular schedule operated daily each way. The road owned six locomotives and 141 miscellaneous cars.

And then came the excitement over whether the railroad would hold its right to the land grants by building across the Colorado line within the time limit, or whether the great Holliday dream of a system from Chicago to Mexico and the Pacific coast would fold up and die.

The first intimation of the race with time came in May, 1872, when Al Robinson took over as chief engineer and the gruff and profane Jim Criley started to lay railroad west from Newton.



"It Means That if We Don't Make the Colorado Line the Bankers Will Take Over the Railroad."

About the same time, two gentlemen with a tent opened up a store under canvas as a place which later was to be immortalized by Wild West writers —Dodge City. It grew overnight along a wide, dusty street, and Fred heard of the free and ready use of guns whipped quickly from hip or thigh long before the Criley track slaves followed the graders down through Hutchison, Great Bend and Larned.

Meanwhile things had been going bad in Topeka, and the railroad's finances had been badly juggled in one way or another, until ruination seemed certain unless the Colorado line could be reached.

"It means," Al Robinson's tobacco-chewing assistant told Fred, "that if we don't make the line, the bankers'll have old Colonel Holliday where the hair's short, and take over the railroad. Without them land grants this iron trail won't be worth the ties it's laid on. We got orders to carry it through. If we don't, it's gonna be terrible for somebody, mostly the people that has bought stocks and bonds."

LLOYD DURFREE watched the progress of steel down through the plains, up on the first swell of the plateaus beyond the Great Bend country. He stood in the Webster living room on the night of September 19, 1872, and waved a telegram in his hand under the nose of the puffy Alonzo. Durfree's dark eyes were bright. His nostrils twitched.

"Read this," he said, his voice trembling with his elation.

"Dodge City," Alonzo mumbled. "The railroad's in Dodge City. I don't see anything about that to get so excited about, or to be happy about."

"You old fool," Durfree snapped. "Can't you see? This is the end for those builders. They can't keep up this pace. And then what happens? By December, when the bad weather has set in, they go no place. The first of the year will be on them, and they won't be anywhere near the Colorado line. In fact, they, or no one else, know where the line is. I'm informed there's argument about it now.

"But then you watch the stock. That's where we come in, Webster. You and me. With the failure to reach Colorado, we can hammer it down and buy it in for a song. However, that's not what I'm here for. Where's Sally?"

"She'll be down presently." Webster fumbled nervously with his hands. He was obviously under a strain.

Durfree eyed him closely.

"Well, what's her decision about this wedding going to be?" Durfree demanded. He'd come to the end of waiting. "She ought to know by this time that she won't hear from that roustabout of a Carlin again."

"It isn't Carlin."

"What is it then?" Durfree snapped. "Listen, Webster. I told you I had enough of your foolishness. I told you to impress on Sally that our marriage meant more to you than a little bit. If you haven't played your hand—"

He left his words suspended at the sound of a swish at the hall door.

Sally Webster came into the room. Her chin was tilted, her eyes burning. She gazed unflinchingly at Durfree.

Stopping directly in front of him, she held him with unblinking stare for a full moment. Then, in a tone held low in fine restraint:

"He's played his hand, Lloyd." She nodded toward her uncle. "And so have you. I'm sorry, I heard. I consented to our engagement a long time ago because my uncle seemed to wish it so. I did not suspicion then that I was for sale. I am not for sale now."

Quickly Sally Webster snatched her engagement ring from her finger. She thrust it at the startled Durfree, turned and swept from the room.

"But, listen. Sally!" Alonzo Webster's arms were reaching out for her. Fear was on his face.

IN the telegraph shack at the end of steel on that bleak, chill Christmas Eve of 1872, Carlin shook the snow from his cap, held the oil lamp closer and looked at the telegram for a second time. The operator he had installed there had made the copy.

"Come Topeka at once concerning S." It said no more. The signature was "Tom Anderson."

Calling Topeka over the storm blown wire, Fred finally got Anderson on the line.

"What mean S?" Fred rapped out, and he knew the answer before Anderson tapped it. Something about Sally. He was sure.

"Miss Webster," Anderson replied. "Can't put details on line."

The end of steel was, at the moment, 465 miles west of Topeka, and within three miles of the immediate goal—the Colorado line. The ragged, weather-beaten army of Jim Criley was driving night and day to put the last rail over before the new year. Telegraph service was right up with the construction.

With a nameless fear gnawing at

him, Fred called his gang assistant and told him what to do to carry on. Then, packing a few necessities, and not even waiting to shave, he got permission from the chief engineer to have the engine run him back to Dodge City where, if the engineer could make it fast enough, he could connect with the regular eastward passenger train.

Two days after Christmas Fred shook Tom Anderson's hand and the two dropped down in chairs in Tom's room at the Topeka hotel.

"You mean, Fred, you haven't heard a thing from her?" Anderson asked.

"Not a thing, Tom. Tell me. I've been half worried to death."

"The inside details nobody can give you except, perhaps, Durfree. And he wouldn't tell his mother."

"Durfree! What's he done to her, Tom?"

"Nobody knows. You can only guess. But it started back in September, I think. Right after the railroad got into Dodge City. There was an announcement in the paper that Durfree was dissolving his banking partnership with Alonzo Webster."

Anderson paused to light his pipe. Then:

"I've always been a little suspicious that Durfree was holding something over Alonzo's head. I couldn't prove it. But about the middle of October Alonzo Webster turned up missing."

"Missing!" Fred caught his breath sharply.

"Yes. He didn't come home from the bank one evening. He had left his office at noon. Sally became alarmed along about midnight and went to a neighbor's house. The neighbor dressed and went around to various places, getting other people out of bed. Nobody had seen Webster."

Fred's nails were biting into his palms.

"An audit of the bank was made as soon as it was certain Webster wasn't coming back. That was about the first of November. The *State Record* had had reports of Webster having been seen here and there, but no one was able to find him and bring him back.

"The audit?" Tom Anderson looked down at his hands. He studied them through a long pause. His eyes came up to meet Fred's.

"Shy?" Fred said.

"Cleaned out. That bank was in a hell of a shape. It had collapsed good and proper. They called Durfree in. Somehow his skirts were clean. He said the reason he pulled out of the bank was that he feared his partner's honesty and reliability. I don't understand this financial stuff. But there it was. Sally's uncle gone. The bank dumped."

"Dumped!" Fred sprang to his feet, stood over Tom.

"Every last dime," Tom Anderson said.

"Why didn't somebody let me know?" Fred asked.

"I thought perhaps you did know, Fred. I never thought to drop you a line. But Sally. She did a damned brave thing, Fred. She put up the house and all the property her uncle held, real and personal. She did all she could for the creditors."

FRED took a turn about the room, his hands clasped tightly at his back. A formless panic seized him.

"Where is she now?" Fred suddenly demanded.

"I wish I knew," Anderson replied slowly. "That's why I sent for you."

"You mean she's gone?"

"Listen, Fred. I knew very little

about any of this until a few days ago. There wasn't anything I could do by going to her. But the other day—the day I telegraphed you—she came to me and said she was going away, and if ever I saw you again, she would like me to give you a message. She didn't know where she could reach you herself, and she said it was probably just as well that I send it."

"A letter?" Fred's hand reached out. "For God's sake, Tom, don't make it any harder for me."

"Wait, Fred. A letter, yes. I could have forwarded it out to the end of steel, but she was acting so peculiar when she came to me I thought I'd better wire you. I did. I didn't dream she was leaving Topeka. I just recently heard she had bought a ticket to Kansas City."

"When was that? When'd she go?"

"The same day she saw me," Anderson replied.

"Four days ago," Fred mumbled. "Quick, Tom. That letter."

Tom Anderson got it from a drawer, gave it to Fred.

Fred's fingers trembled as he tore it open. He pulled the folded sheet from the envelope, opened it out, took it to the window and frowned over the fine script. The letter was short, but one line stood out:

If you had written to me at least once to tell that . . .

His hands dropped suddenly to his sides; he stared through the window into the gray of the winter day. His fists knotted and he thought of Durfree. Could the young banker have intercepted his note that night? Either the banker or Webster. Either could have done it. No use confronting Durfree with it now.

Fred grabbed up his hat.

"Anything I can help with?" Tom asked.

"No. I've got to try to find out where she went."

"But, Fred—your job. You're not leaving."

"Tell Peters I'm sorry, will you, Tom? I've got exactly forty minutes to buy a suit of clothes and some other things and get the Kansas Pacific east out of here. I'll write to you and give you my address, and report anything of interest to you."

Thirty minutes later he was on the station platform. It was the first time since that day he'd kissed Sally Webster back of the station, and had said good-bye to his old job because he'd used his fists in the crowd at Wakarusa.

A whistle shrilled the station call, rolling in from the west. The operator came out, spoke to him.

"Not leavin', are you, Fred?" the man said. "Not now, surely."

"For a while. Why?"

"Just got a flash. That Santy Fee railroad of yours. It crossed the Colorado state line at 4.52 this afternoon!"

Harvey House Girl

SEASON followed season, thaw followed snow, and heat burned the plains over Kansas. Stopped by the panic of 1873 from further progress, the Santa Fe, like all other business, went into a period of long stagnation. A little building in Colorado, a few preliminary surveys out as far as Trinidad. Thirty-three locomotives in service between Dodge City and Atchison, to which latter point the line had been completed east of Topeka. Twenty passenger cars were operated

and the company boasted of two gilded sleeping coaches.

Down in Topeka a young man by the name of Fred Harvey emerged from the gloom of depression with a brilliant merchandising idea. He called on Thomas Nickerson, who had succeeded Colonel Holliday as the Santa Fe president, and advanced the theory that people traveling on trains ought to have something better to eat than tough bull beef, old bison steaks and tinned corned beef.

There was a vacant space in that barny two-story Santa Fe office building to which trains came from east and west several times each day. Mr. Harvey was certain that he could set up a lunch room which would be a success.

In that bare and smoky room the institution which was to become an integral part of the railroad had its beginning.

Using selected young women as waitresses, Harvey was able to offer a service of personality to his guests. Within a month the Topeka enterprise was an assured success.

Down the line at Florence, an important division point, there was an old hotel. It was close to the main line tracks. Fred Harvey wanted it. The price was $10,000, and the Santa Fe was too poor to put the money up at the moment.

"You get the money and buy it," President Nickerson told Mr. Harvey, "and the railroad, as soon as possible, will reimburse you for it."

Harvey got the money. The hotel became the railroad's property, and the first real Harvey house was opened with lunch room, dining room, and sleeping rooms. Train schedules were convenient so that passengers wishing to break a long trip by a night's rest could do so and get out of town the following day early. All trains stopped for meals. A Chicago chef was imported for that Florence venture and conservative railroad men thought his salary equal to that of many a general manager of the times, was incredulous.

Newton, the cow town, was next, and then Kinsley on the Arkansas River, just east of Dodge City. As the rails went through on the big push to Trinidad, the Harvey chain followed up with the lunch room at La Junta. The branch building up toward Denver was by now practically complete to Pueblo, and the Santa Fe system, with entry into Trinidad, boasted 620 miles in operation.

It was then, on an afternoon early in 1878, that a tall young woman with a majestic carriage, a frank face, and sober eyes, entered the office of Fred Harvey in Topeka and presented to that gentleman a letter. Harvey read it through twice. It was from an old friend in Chicago—a hotel man.

"Your name," said Harvey, "has a strangely familiar ring. Webster. Let me see. Webster. Anyhow, you seem to have had quite a service with my friend, young woman."

"I started with him five years ago," the girl stated, "when I arrived in Chicago destitute. Your friend hired me for his dining room. As you see by the letter, I became his restaurant manager. I told him I wanted to come back to my home country." She looked down at the capable hands folded in her lap.

Sally Webster did not care to go into details of that long, long search for her absconding uncle, her own troubles and hardships, and the secret, unquenchable yearning for the companionship of her earlier years.

"I can't make you a manager right off, my dear young woman," Fred

Harvey said. "But if you want to start at the bottom, like all my girls do, all right. You wouldn't object to going to La Junta?"

"La Junta?" There was a slight catch in her throat.

"In Colorado, yes. The junction of the main line. One leg of it goes up to Pueblo from there. The other is south of Trinidad now, with the New Mexico border as the immediate objective. I'm getting my staff ready to send there on the night train this evening."

"What time must I report for the train?"

"Be here at six-thirty," Harvey said.

NOW general superintendent of telegraph, Fred Carlin climbed on the rear platform of the official car that came to a halt in the Trinidad yards. He climbed up with shoulders drooping, and eyes burning from long hours without proper rest. He was fighting, shoulder to shoulder with others of the new management, to keep the railroad alive, and to keep up the work in spite of million and one setbacks.

After a long time away on his fruitless hunt for Sally Webster, he had come back to plunge into the construction work with a reckless abandon that almost pulled him down physically, but which helped to ease his mind. Visions of the girl would not leave him. The nights in this lonesome highland were the worst to endure. The farewell note she had written had been creased and uncreased by its many readings until now it was literally in pieces in his wallet, but he guarded it and cherished it.

One day Fred entered Strong's car for the daily conference on ways and means.

"This telegraph into Trinidad," Strong demanded, lighting a cigar and offering Fred one. "What in the name of hell's the delay about, Fred?"

"Labor trouble for one thing," Fred retorted. "Men unpaid for weeks at a time. They get restless. Now the snow's falling. Well, I'm doing all I can to push it through, Mr. Strong. The last of the poles will be planted tomorrow. I'll get the wires up if I have to hang 'em myself. I've done it before."

"I know, son. But the thing that's worrying me, Fred, is this Denver & Rio Grande outfit. That's a damned aggressive bunch of railroaders. There's some new money coming in to them from some place. You see what they're doing. Down at El Moro now, and not a hell of a long way from Trinidad. Do you know what could happen if they ever stole a march on us into Raton Pass over the mountain for New Mexico?"

"I can well imagine," Fred said.

"If they ever did that, Fred, the men who laughed at Holliday's dream about going into Santa Fe could enjoy a fit of spasms."

Fred rose and stared out at the snow. No one knew better than those on the inside that the railroad was in a spot. Strong stood behind him.

"Don't fret about it," the general manager said. "We'll make it somehow. Maybe it'll be by a miracle, but you bring that telegraph into this town tomorrow if you can. Hell's likely to pop loose any day."

"Tomorrow!" Fred started out.

"Hold on!" Strong stopped him. "Eat with me. You need a change and speaking of changes in grub, that new Harvey dining room they've opened in La Junta is good. I was down there yesterday."

THE snow fell softly on the platform of the little La Junta depot. Sally Webster looked through the lunch room windows. The westbound train for Pueblo had discharged its passengers, all of whom had eaten. The westbound train was down at the west end of the siding, waiting for the man from Pueblo to come steaming in.

Sally stared moodily into the snow. The day was bleak, lifeless, and the gray lingered on the mountain rims.

Suddenly the girl caught her breath, shrank back against the wall. She continued to stare. A man was pacing up and down the platform, looking at his watch, then gazing toward the west. The feeble light fell across the sallow features. The man was Lloyd Durfree, and he was agitated and worried.

Sally dropped back abruptly from the window as the eastward train whistled. Her thoughts were in a panic. Lloyd Durfree was the last person in the world she wanted to see. She went back to the kitchen door.

She was opening it when Durfree came in with a slim, booted man he had met off the Pueblo train.

Just inside the kitchen Sally saw the two look about hurriedly for a table. Durfree kept glancing at his watch, as if time counted greatly in whatever plan he had afoot. The two men picked out a table in the far corner of the room, well away from any other of the straggling customers and almost directly outside the kitchen door. Sally saw Durfree cast his eyes furtively about for an instant, then lower his head. She heard his voice, lowered almost to a whisper.

UNSUCCESSFUL in his attempt to manipulate Santa Fe stock for his own private gains after driving Webster to financial ruin, Durfree smiled at his companion. The other man's name was Dowd, and he was an inside man in the Denver & Rio Grande financial family.

"Well, Dowd," he said, "just how far have you people gone along with the ideas I suggested? Because, as I telegraphed you today, it is imperative that the D. & R. G. construction men move on to Raton Mountain tonight. I outlined to you how I figure they could go from Pueblo down to El Moro and be right there on the ground."

"Go, yes!" Dowd was breathless with excitement. "McMurtrie. That's our chief engineer. He'll have a crew on the night train down to El Moro all right. How about your stock deals?"

"I've plunged everything I've got," Durfree said. "If we don't bottle up the Santa Fe and hold it out of Raton Pass before the stock market opens tomorrow, I might as well stay right here and apply for a job sweeping snow off the rails. I sold enough shares short after I got your telegram today. But nothing must happen to those plans. If they do, we might as well leave the country."

"We might as well die," Dowd retorted. "I've got my whole family into this thing on your say-so, Durfree. I explained how that stock, tomorrow, won't be worth the paper it's written and printed on. I told 'em how it depended on the D. & R. G. men filling the pass so full that the Santa Fe couldn't blast a hole through."

"Does McMurtrie know what we're doing?" Durfree asked quickly. He kept looking about him.

"No. Neither does Palmer, the president. Listen, Durfree. Are we safe here? Why the hell did you have me meet you here instead of you coming to Pueblo?"

"I've got my eye on this Santa Fe

crowd," Durfree said harshly. "I got them spotted. I know where they all are—anybody who could do anything to stop us. There's no telegraph through yet to Trinidad. I was able to work on some of the gang men with a little money to provide some necessary delay there. No, my friend. The death to get to the general manager as soon as possible.

"Ma'am," the man drawled, "I just come down with my engine from Trinidad. An' since there ain't another engine between here an' there, an' since you say you got to get to the general manager—well, lady, I'm willin', I am.

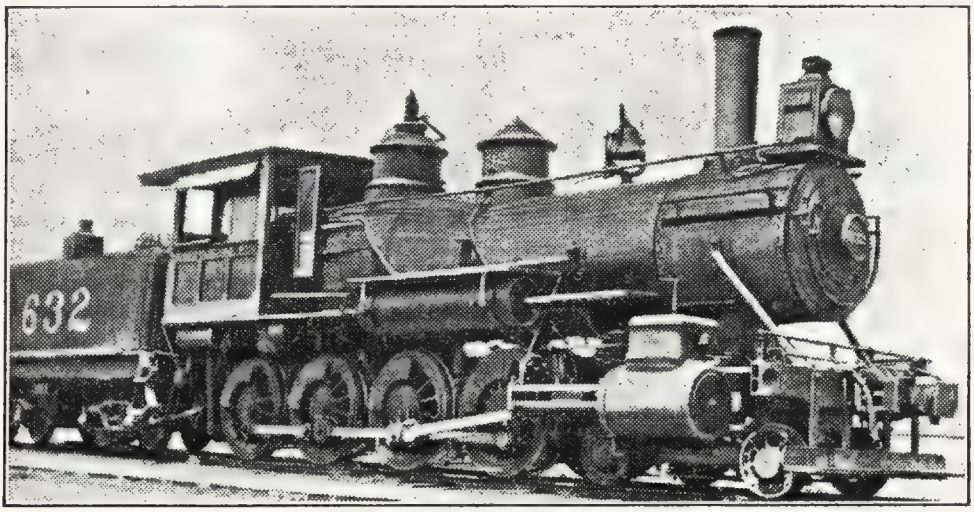


Photo by R. P. Middlebrook, 2744 Columbia St., San Diego, Calif.

Here Is an Old Santa Fe Twelve-Wheeler that Dates Back to the Early Days of the Road. She Was Built in 1881, Is No Longer in Service. She Had 20 x 26 Cylinders, 53-Inch Drivers, 150 Lbs. Pressure, Exerted 25,000 Lbs. Tractive Force

Santa Fe sleeps. Tonight it dies in its sleep, and Carlin and Strong at Trinidad can die along with it."

HUGGING her cloak about her, Sally Webster plunged through the snow into the telegraph office. The operator insisted that there was no telegraph service into Trinidad as yet, and the only way to get to General Manager Strong was by train or by mail. Neither was very practical because there would be no train until tomorrow when the work engine went up, and there'd be no mail for days.

Running next to the engine house, a startled man in overalls listened to her plea that it was a matter of life or It's eighty odd miles. It'll take the best part of the afternoon."

She was profuse in her gratitude as the engineer hurried over and got his fireman and the conductor, who had come in with the engine.

The conductor listened to Sally's fervent plea, agreed with the engineer that if it was some secret message for the general manager they couldn't do any more than get it there. They told the operator that if the telegraph did get through before the engine could reach Trinidad, to notify General Manager Strong.

Sally climbed into the cab of the little 4-4-0, the engineer shrilled a whistle blast across La Junta, and the

light engine plunged at the westward rise.

Trail's End

FRED CARLIN was as good as his word concerning the telegraph service into Trinidad. Following his supper with the general manager the evening before, he picked a handful of men whom he could trust, and led them out personally to do the work of getting that line in. They worked all night. They worked all through the cold snowy morning, and by noon Fred was on the poles with his wires, the reel going along ahead of his straggling, half frozen parade.

At 3 P.M., with the light of day failing, Fred climbed down the pole in front of the Trinidad station, directed a man to carry the wires into the little office, and then went ahead, with numbed fingers to connect up the brass sounders and keys with the jackbox on the wall.

Breathless in his pounding, and remembering that other afternoon years back, when he had sent the first call ever to go over Santa Fe wires, Fred sounded the signal from La Junta to come in.

"I, I," came back from the La Junta operator, and then Fred identified himself as Trinidad.

"Thank the Lord," the La Junta operator pounded. "Is general manager anywhere around?"

"Yes, in his car. Why?" Fred rapped out.

"Don't ask me. You might prepare him though."

"What you talking about?" Fred demanded in code.

"Light engine in charge one engineer," the La Junta man tapped back, "on way to Trinidad with slightly crazy conductor and one Harvey House girl. Say they have message for you or general manager or both that is matter of life or death."

"Quit foolish comment," Fred demanded in Morse, "and tell me who girl is and what she wants."

"Think name Webster. Nobody here knows why left, or what on her mind."

GENERAL MANAGER STRONG and Fred Carlin were on the Trinidad platform when the engine came whistling down on them. Fred's heart was in his mouth. Webster. A girl named Webster. He told himself he was crazy for even imagining it could be Sally. The official stood by his side, brow knitted in puzzled contemplation.

The engine skidded to a stop on the slippery rails, her drivers sliding. She slid to a point considerably beyond the spot where Fred and the general manager waited. The two ran toward the cab. They reached it just as the engineer dropped to the ground and turned to help the girl down.

"It's Sally!"

Fred stared at her as she rushed up to him. She held him tightly. The general manager hovered over them.

"Yes, Fred," she said. Her voice was tremulous.

"But, Sally! Where—what—"

"No time for that now, Fred. Let me talk to Mr. Strong!"

"I'm Mr. Strong, miss." The general manager faced her.

They went into the telegraph office where a fire was roaring in the stove. Fred still could not believe his eyes.

They sat by the table, the fire at their back. The girl started speaking. She

said, "It's Lloyd Durtree, and something about finances that I do not understand. Something about selling stock short, whatever that means."

"Santa Fe stock?" the general manager demanded, leaning forward.

"Yes. I overheard them at the table. They said a party of engineers under McMurtrie, the D. & R. G. chief, would be moving into El Moro, just outside Trinidad tonight over the Rio Grande rails, and they would block the pass there over Raton and that way keep the Santa Fe out. They said something about stock not being worth anything tomorrow."

"We'll have to get Robinson," Fred shouted.

"Robinson's at Rocky Ford," the general manager blurted. If he could get word to his own chief engineer and start Robinson moving down to Trinidad with a crew of men at the earliest possible moment, they might stand off the Rio Grande's army of occupation.

When everything was settled Fred turned to Sally. She looked up at him.

He closed his arms about her. Strong looked away. For a long moment he held her. Then he heard the general manager cough.

"Another message to Robinson, Fred," Mr. Strong said. "When you get around to it."

"Ready, Mr. Strong."

"We hold that pass if it takes the last man we've got. Tell him that. We'll wait here for him. We'll get what men we can together, and be ready to move when he comes along. He knows where we can go, and the easiest way to get there. If we knew now we could go ahead without him. But we don't happen to be engineers."

AND up at Rocky Ford, when Robinson got the message, another engine was brought into play and a mad dash made for Pueblo where Robinson recruited what men he could just in time to jump on the coaches of the southbound Denver & Rio Grande train bound for El Moro.

The train was cluttered up with Rio Grande engineering and contruction men under the direction of McMurtrie, who seemed not at all surprised to see the Santa Fe's chief builder. The two men, in fact, exchanged greetings.

Fred and the general manager met Robinson and his men at El Moro with an engine and cars on the Santa Fe rails. The Rio Grande line, not yet having been brought into Trinidad, had to dump its men there in the snow.

After telling Sally that she should return to La Junta as soon as it was possible, Fred joined Al Robinson for his midnight dash on horseback to the cabin of old Uncle Dick Wootten, pioneer mountain man, to solicit his help on the project of holding Raton Pass at all costs. Uncle Dick, fortunately, had a few men he could call upon.

Meanwhile, at Trinidad, Sally Webster took charge of hastily throwing supplies together while Strong and Bill Storey, Robinson's assistant engineer, mustered their forces, got picks and shovels, and started out in single file on the long trail up the North Raton Creek to meet Robinson and Fred.

Over across from El Moro, five miles on the east of the Santa Fe forces, McMurtrie assembled his men and started out by another route in the hope of reaching the pass first. But they were handicapped by the longer journey.

Silently, and goading themselves at

every step, the Robinson army began the long climb up the steep mountain. Most of the men were armed and none of them seemed aware of the presence of the girl trudging along at the rear.

By three o'clock in the morning, topping a stiff rise, the marchers were called to a halt.

Al Robinson seized a pick from a workman's hands and, in the flare of a torch, struck deep in the rocky soil. Thus the Santa Fe started building through Raton Pass.

Along the grim line of workers, which included officers and men alike, fires were kindled by a uniformed girl. A huge can of coffee was put on to cook. Other food was prepared.

At five o'clock a shout from the outpost of the line went up. All hands stopped. All faces turned east.

McMurtrie's half-frozen, half-winded army came to a halt on the slope.

"Just a mite too late, Mack," Al Robinson shouted. "I'm hanging on to this property in the name of the Atchison, Topeka & Santa Fe. In fact, I've got the first grade thrown up. If you boys want to argue any about it, my men and I are ready to defend this pass with our lives. Our orders are to hold, by force if necessary, so it's up to you, Mack."

"Maybe there's more ways than one of getting over," McMurtrie said. "As far as trouble goes, we don't want any here."

Strong called Fred over by a roaring fire where Sally poured him a tin of coffee. Daylight at last was breaking.

"I'm taking you two back down to Trinidad with me," Strong said. "If it hadn't been for the girl, and for your persistent efforts to get the telegraph through, what I said the other night would be true this morning."

THIS all happened in February. And while McMurtrie and his men did their level best to find some pass by going up Chicken Creek instead of the North Raton Creek, Fred Carlin and Sally Webster were married by a parson who came to La Junta from Dodge City to perform the ceremony.

With the permission of the general manager to take a month or more if they wanted it and have a first class honeymoon for themselves, Fred and Sally boarded an eastbound train.

They called on Tom Anderson, who now was the chief passenger officer at Topeka.

"Chicago for you two, eh?" Tom asked. "Have a good time. If you see your old friend Durfree, you might tell him how sorry you are."

"Sorry?" Fred asked.

"You certainly cleaned him out, you two. He was in here yesterday. He bought a ticket to Chicago with nearly his last dime. He told me that if it hadn't been for a girl named Sally . . ."

They laughed roundly and shook hands warmly. As Fred and Sally started through the door, Tom Anderson said, "Oh, say! I almost forgot. A little communication from Strong. The general manager wanted to be sure you got a wedding present, Fred."

It was a copy of an official printed notice. Fred read it with bulging eyes.

Effective this date, Fred Carlin, telegraph superintendent, is now appointed to the position of assistant general manager of the western lines, with offices at Trinidad.

A snorting high-wheeler, fussy and important, rattled in from the west, came to a precise halt. Fred stood back and helped his bride to a coach that had just come over the newly-finished Santa Fe trail.

The Ideal Freight Crew

OLD-TIMER, if you could roll back the curtain of time thirty years or more, and could choose your ideal local freight crew and equipment, I wonder what your choice would be? Here is mine: For an engine I want one of those old ten-wheelers with drivers not much larger than the top of a pill box, one that clanks and bangs with every revolution, one which has so much lost motion in crosshead, wedges and rods that it is a mystery how she holds together at all. She must have at least three flues and five stay-bolts leaking, yet in some miraculous manner she always must have plenty of steam, and be able to outrun the highest-wheeled Atlantic type on the road. Then, for my caboose, I want a battered old relic that hasn't been painted for twenty years and has one side all blistered from heat, dating back to the time she was nearly burned in that sawmill fire. I want her to have an abundant supply of the locker cushions which every local crew swipes from every deadhead caboose whenever they get a chance.

For my engine crew, I want as a fireman some young fellow who has just been taken from the roundhouse, where he was a wiper, and who would not trade his present job for the presidency of the road. He must be a lad who is extremely anxious to make good, and who consequently is always watching for signals, is full of theories on combustion and is always listening eagerly to ideas on mechanics. My engineer must be one who has been promoted long enough to have lost his nervousness; one who wants a reputation as a fast runner, knows to a pound how much she will pull over the hill, and to the split second how long it takes to go from here to there.

Now for my brakemen. The head man must be named "Mac" or "Red," weigh about 180 pounds and be able to carry a hall safe on his back from way car to freight platform. Good-natured and almost always with a grin on his face, he must be the fighting man on the crew when some BIG drayman or hobo insists on trouble. From a man half his size "Mac" must shy away and run, if he has to. My swing man ought to be named "Windy" or "Noisy," because the only time he ever speaks is when he can't get out of it. But if his tongue is still his brain is not. He must see moves in switching fifty miles away, and figure accordingly. And he must be tall and lanky. Then comes "Shorty." Sure! Shorty is the "parlor" brakeman, and he should be about five feet four inches. The "dude" of the crew, he puts on a clean shirt at least once a week. And is that crummy kept clean! When Shorty brings the "glims" over, they burn and stay lit. You are not always blistering your fingers and re-lighting lamps that Shorty takes care of.

Now for the balance wheel of the organization, the conductor. I want a grizzled veteran with the disposition of a disturbed hornet, preferably with a "flat wheel" and the ability to blister the hide of any agent who dares ask for an extra switch after the list has been given the crew. Before him even the most Devil-may-care brakeman stands a little in awe, and as heaven knows, anything that bunch stands in awe of must be a bear cat. Now, honestly, old-timer, haven't I picked just about an ideal crew? And haven't you seen many a crew just about like 'em, in days gone by?—W. F. Knapke, East St. Louis, Ill.

TRUE TALES OF THE RAILS

Actual Happenings Told by Eye Witnesses

A One-Day City of 30,000

As Told to EARLE DAVIS

BACK in 1896 a railroad "city" of 30,000 men, women and children came into existence for just one day. This city was located in Texas on the main line of the Missouri, Kansas & Texas Railway. It was named Crush, not because of its dense population, but in honor of Mr. W. G. Crush, general passenger agent of the M., K. & T.

The municipality of Crush, Texas, was born at daybreak, grew to amazing proportions as the sun rose higher and one trainload after another of excursionists poured in, together with horseback riders, buggy riders, hay wagon riders and pedestrians; and it became a "ghost town," silent and deserted, shortly after the sun had gone down behind the gray hills.

No other railroad city has ever attained such phenomenal growth in so short a time nor has ever been wiped off the map so quickly.

During its brief hey-day, Crush had its own officers of the law, its own saloons, restaurants, side shows, first aid stations, and a great many varied attractions — even its own jails for the drunks, mashers and pickpockets. No marriages or births are known to have occurred in this one-day metropolis, and no municipal election was held, but at least two deaths are recorded—result of the "big moment" in Crush's skyrocket history.

Crush was, in reality, a highly specialized amusement resort. Weeks before anything happened there, the Missouri, Kansas & Texas had posted billboards for miles around, and a thousand newspapers had heralded the news that a deliberate head-on collision of freight trains would be staged there for exhibition purposes—for the first time in America! A rare and dangerous thrill was promised, and it seemed that the whole world and his wife and family had turned out to see the fun.

It was a sweltering hot day, typical of Texas in midsummer. Huge tanks of ice water vied with the saloons, restaurants and fakers for the attention of the populace. The site was a great basin of a hundred acres or more surrounded by gently sloping hills, the ideal amphitheater for such a spectacle.

As the shadows lengthened toward the east the vast throng became more tense, more excited. At 4.30 P.M. two old diamond-stack wood-burning engines, each pulling a tender and six old box cars gaudily painted with advertisements of M., K. & T. service, were given the right-of-way on the main line for a preliminary trial.

One of the locomotives had been re-

numbered to 999. At her throttle was Big Bill Stanton, with Ted Barnes as fireman. The other doomed engine was the 1001, manned by Engineer Tom Caine and Fireman Steve Dickerson.

On the trial run Stanton backed the 999 a mile to the north and then highballed down the line toward the collision point, with throttle wide open and whistle screaming. At the same time Caine was doing his best to run the wheels off the 1001, stepping back a mile in the opposite direction and returning to the scene of the impending crash.

The spectators gasped, held their breath for an awe-inspiring moment. This time the engines did not quite meet, but merely saluted like two prize fighters, posed for their pictures, and trotted back to the starting lines. A mighty roar went up from thousands of throats. The real thing was going to be good!

FINALLY from the dispatcher's office the query, "Are you ready?" was ticked out in clipped, chattering Morse.

"Yes!" was the answer.

"Then go!" flashed the order, and the show was on.

Once more the whistles screamed, this time a death wail, and the two iron gladiators thundered down the last mile. The firemen, who had remained aboard until this moment, leaped out of their cabs.

Big Bill Stanton opened the throttle of the 999 and jumped before his engine had gone more than a few hundred yards; but his rival, Engineer Caine, stayed with the 1001 for a half mile before joining the birds. The 1001 was rolling at speed when the reckless Tom Caine leaped, turned over and over on the cinders, and sprang to his feet with a bow, unhurt save for a few minor scratches. Sighs of relief arose from the crowd, as well as shouts of applause.

A surprise thrill came when the two engines reached the level stretch of track. Scores of torpedoes had been placed there. The ensuing din was like the firing on the Civil War battlefields more than thirty years before. There were yells of approval, which were quickly silenced by the realization that the two iron monsters were about to lock horns in deadly combat.

Thirty thousand pairs of eyes were riveted on the spot, some with eager anticipation, some with fear. All were keyed up with intensity—an intensity so sharp that some women turned away their faces or burst into hysterical screams.

With a terrific crash the 999 met the 1001. Immediately an explosion followed. Clouds of dust leaped skyward with a shower of missiles hurled aloft by the impact of the two trains and by the liberated steam.

Both locomotives were, of course, reduced to scrap iron, and seven of the cars were smashed beyond hope of repair. A man from Waco, Texas, who had climbed a tree to get a good view, was hit in the head by flying iron, while a piece of chain tore its way through a girl's skull. The official photographer, J. C. Deane, was critically wounded, and several other spectators were hurt.

These injuries, coupled with the hysteria and excitement, threatened a general panic, but cooler heads prevailed and there was no stampede. The surgeons present did what they could for the victims, but the man from Waco and the girl died the next day.

Mr. Deane was found to have a bolt nearly two inches long imbedded in his left eye—an injury from which he

eventually recovered, with the loss of that eye. Although suffering acutely, the unfortunate photographer did not lose consciousness, and displayed heroic self-control by explaining in detail how the picture he had snapped should be finished.

After the crash the spectators thronged upon the scene and carried away thousands of souvenirs. Some of those relics may be seen to this very day in the possession of one-day citizens of Crush City and their descendants.

A number of damage suits were filed against the Missouri, Kansas & Texas Railway, whose general passenger agent, W. G. Crush, had promoted this dangerous spectacle, and against the advice of other company officials, at that. Considerable revenue was derived from the special excursion trains, but the resultant publicity was mostly unfavorable.

So far as can be discovered from available records, the affair at Crush City was the first and last head-on collision ever sponsored by a railroad company in this country, although many others have been staged at county fairs and elsewhere by "Head-On Joe" Connolly, whose life story was told in the April, 1933, issue of RAILROAD STORIES.

South Park Memories

By GIBSON H. JOHNSTON

THE other day I ran across a copy of December, 1933, issue of RAILROAD STORIES, which contained M. S. Goodale's true tale about the old Denver, South Park & Pacific R. R.—"The Great Old South Park." Well, brothers, it certainly did take me back to the old days—the great old days—when I used to work on that narrow gage road. I wish I were there now!

The small boys in Denver used to call her the "Damn Slow Poke & Pretty Rough Riding," which was as good a name for her as any. But it didn't quite take in the whole situation. The D. S. P. & P. was the most thrilling, hell-roaring little one-horse line on the American continent.

On my first trip I fired 2-8-0 type No. 190, a rough-riding, knock-kneed old gal that could make all of 20 miles an hour. We ran from Denver to Como, and Lou Fowler (rest his soul!) was my hoghead. I guess he was a bit skeptical of my ability to stoke the old mill, for all the way to Como he kept saying: "You are doing fine; keep it up."

On the return trip, after we were over Kenosha Hill, he told me the 190 was a good steamer and a hard puller, but he added other things that weren't so complimentary.

"You know," he told me, "we all hate and fear this old rocking-horse. So far she has killed sixteen men, and she ain't done yet. No, sir, she ain't done yet."

To drive his point home he showed me the various places along the right-of-way where the 190 had turned over. Well, it seemed that the old coffee-grinder had flopped so many places between Denver and Como that Fowler

was kept busy the whole trip pointing them out to me.

"You picked the wrong man if you're trying to scare me," I laughed. "Because she has killed sixteen men is no sign I'm going to be the seventeenth."

My next trip was with Bill Klett. He was a funny dude; when the engine's p o p s (s a f e t y valves) would blow he'd invariably reverse the old gal and slip her drivers until t h e pops were quiet again. The second time he p u l l e d this trick I got down and baled coal into the firebox, for my fire was almost gone.

"Hey, there, son," he yelled to me, "quit that. I'm trying to stop the noise of that steam blowing off. We can't use too much steam on this gunboat."

That pleased me, and I saw to it that he had as little steam as possible from then on. Needless to say, there was no more slipping of drivers that day.

Another time the train ahead of mine was wrecked. Her hind brakeman had stuck with her and had been injured. When the investigation came —there were at least two a day on the old South Park—the superintendent asked the boomer brakeman why he hadn't jumped.

"Jump?" asked the brakeman. "That's a good one. Where in hell could I have jumped to? On one side was a canyon a mile deep, and on the other a granite wall so close to the cars that there wasn't even room for a skinny superintendent between them."

The super took that one and liked it. He had to.

A few days later he got another boomer brakeman on the carpet.

"What would you do," he asked very importantly, "if you met a train and its locomotive was carrying green flags by day or lamps by night?"

Now, these signals, of course, indicate that a second section of the s a m e train is right behind, but the point was that for some reason or other they were not allowed on this road.

The brakeman looked the super in the eye and replied: "I'd sure think this pike was doing one hell of a business!"

ALL the interesting boys on the South Park weren't boomers. Buddy Schwartz was a home guard, but he got into and out of more scrapes than any two boomers. About once a week he was in a wreck, but he seemed to lead a charmed life, for he was never hurt. One day the whole train piled on his engine. The crew had given up all hope of ever finding him. Suddenly a voice came from the wreckage.

"Hey, you dead heads," it boomed, "get some of this stuff off me so I can get out of this mess. I'll show you I ain't killed yet!"

Sure enough, they found him under the rear tender truck without a scratch. How he got there neither he nor anyone else could tell.

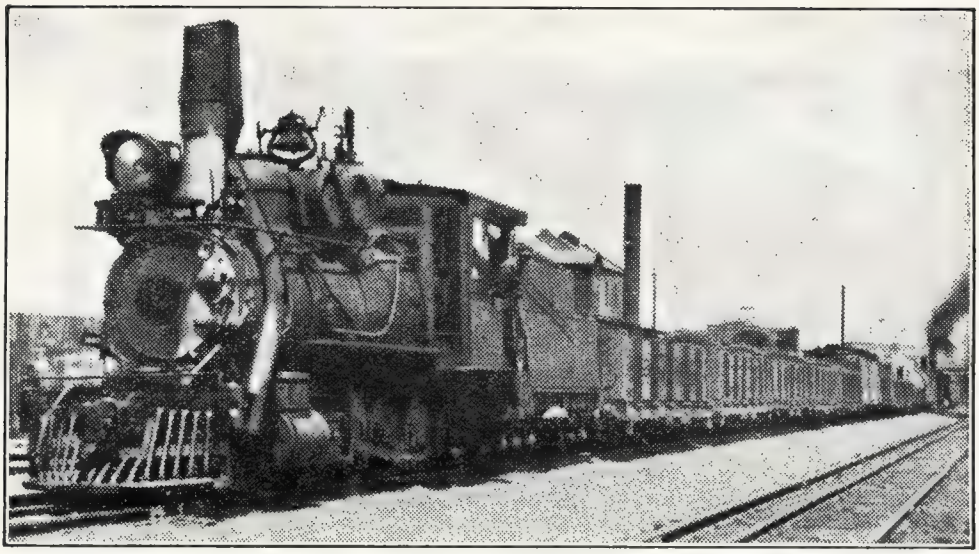


Photo by Railroad Photographs, 5 Appian Way, Allston, Mass.

One of the Old-Time Narrow Gage Engines Still in Service on What Is Left of the Denver, South Park & Pacific. She Is No. 73, 2-8-0 Type, of the Colorado & Southern, and Is Shown Puffing out of Denver with Two Engines Helping Her up the Hill. Note the Dual Track Gage Here. The Two Rails on the Right Are for Narrow Gage Equipment, While the Outer Rails Accommodate Standard Gage Cars and Locomotives

In the end, however, his charmed life was just as easily blotted out as the others.

In the days when the South Park was still a part of the Union Pacific, Superintendent J. K. Choat was examining a brakeman who wanted to be a conductor. Choat was tall and slim: one day a farmer who saw him remarked that he would make a good wiping stick for a double-barreled shotgun.

"You are coming down the line," Choat fog-horned, "and the train went into the ditch and killed everyone on the passenger train except yourself. What would you do?"

The brakeman who wanted to be conductor thought a moment. His eyes twinkled, and he said: "I don't know, Mr. Choat, unless I'd go through and see if they had any valuables." Old Choat just about blew up on that.

Another time Superintendent Choat called in Conductor Harry Holt and asked him a few questions.

"Now, Harry," he said, "suppose you are coming down the hill and your train breaks in three pieces. You are on the middle piece. What would be your reaction in a case like that?"

"I'd set a few brakes," Harry told him. "Then I'd lay down on top of a car, get killed and have my name in the papers."

Choat almost busted a blood vessel, but what could he do? He needed men.

About the time I was set up as engineer the line became part of the Colorado & Southern, which operates what is left of it today. I went through to Como, but on the return trip to Denver, after we had passed the summit at Kenosha, my fireman got worried. He didn't know I had run an engine from Denver the day before, and he said to me:

"Do you want me to handle the air down the hill?"

"Why?" I asked.

"Many who come up here are nervous the first time," he explained.

"Well, my boy," I countered. "When you see me getting in that condition it will be time for you to unload."

NOT long afterward several Burlington engineers got jobs on the South Park. One fellow, Jack Eastwick, kept making fun of the mountains around him, said they were just little hills, and that any engine wiper on the Burlington could drop a train down them with his eyes closed.

The first trip out he was running down from Boreas. The fireman called over the boiler.

"Say, mister, you're not losing any time, are you?"

"Hell, no," Eastwick yelled back. "I ain't begun to run yet."

The fireman knew the South Park, and Eastwick didn't. The fireman jumped out, and Eastwick and the engine and the whole train jumped the track. They went down 500 feet and lodged against a grove of pine trees. Miraculously the engineer was unhurt. But he was canned, fired, discharged, and what have you.

A short while later he asked the South Park for another chance. The officials asked him if he realized now that these mountains were mountains.

He laughed. "Why, they're just hills," Eastwick declared. "Any section hand could run a train over them."

That was too much for the officials. They told him to get a job as a section hand if that was the way he looked at it.

Crown sheets on many of the old South Park engines were in bad shape from topping the hill with water shy; yet I never heard of one of them blowing up. Moreover, they carried no water glasses, and we often let the water get too low without realizing it.

Which reminds me: one day several engineers came in from another road and hired out. They had never been on locomotives without water glasses, so they went to Master Mechanic Sprigg and asked about it.

"Why, hell, boys," said Sprigg, "you don't want water glasses on them bullgines. You would probably be scared to death if you was able to see where the water was all the time!"

With the coming of the Westinghouse brakes things tamed down a bit. I remember that they were given a grand try-out on Kenosha Hill. They had made several trips down the hill with the engine; then the demonstrator ran the locomotive around the cars, pumped up the air, closed the angle cock and kicked the cars as fast as the engine would go. After that he pulled the pin and signaled the crew to stop. By this time they were rolling at a terrific speed. But the brakes set and stopped the cars, and thus the air brake was a proved success.

The old South Park, however, ain't what she used to be. Only the line between Denver and Leadville is left, and it is operated as a branch of the Colorado & Southern, which in turn is part of the Burlington System. The Burlington recently offered to give the line to anyone who would operate it, but the Interstate Commerce Commission has refused to let it go to all who have applied for it so far. Thus the road is still running, and maybe there is a great future ahead of it. With the revival of Colorado's mining industry the South Park may come back in some of its old-time glory.

Emergency Engineer

By FRANK MOFFETT

I BECAME a railroad engineer through the back door, so to speak. While following my trade as electrician in my native State, Texas, I worked for several railroads, and the engineers I met on those roads showed me how to handle an engine and posted me thoroughly on air brakes.

On May 31, 1899, I enlisted in the United States Engineers, Company B, for service in the Philippine insurrection. The rebels had wrecked the narrow-gage Manila-Dagupan Railway, which was then about seven years old, and there was plenty of hell popping. The road was under English management; later it was taken over by the American Government, and greatly enlarged and made over into standard gage.

I reached the Philippines on August 10, 1899. We had barely got settled in our quarters when a call came for locomotive engineers and conductors. I had enlisted as an electrician and mechanical engineer. But the commanding officer called me out and asked:

"We are faced with a grave emergency. Can you run an engine or handle a train as conductor?"

"Yes, sir," I said promptly.

After a few more questions he appointed me conductor in charge of a military train running from Manila to Dagupan, a distance of 120 miles, mostly through the tropical wilderness. We made the run O.K. Two weeks later our regular engineer and fireman both went on a spree, and were dishonorably discharged. Then, as enginemen were scarce, I ran the military special in the double capacity of engineer and conductor for several trips. The rest of my crew consisted of a fireman and brakeman. Except for our crew, only soldiers were allowed aboard that special.

The orders I received from my train dispatcher would give a modern "de-

From R. M. Swigert, 14 Willow St., Hudson Falls, N. Y.

American Troops Guarding the Tracks on the Manila-Dagupan Line During the Spanish-American War

layer" plenty to worry about, but I have two fine letters—one from my commanding officer and one from the United States quartermaster in charge of the road—attesting the fact that I, a greenhorn, ran that train successfully, without a single accident! Our dispatcher was a Signal Corps sergeant. Here is one of his train orders:

Engineer Moffett, Conductor Moffett:
Engine 26 military special will run extra north from Manila to Dagupan and keep a sharp lookout for extras both ways.

I refused to go on this order, as no time was specified and evidently there were extras following us and extras to meet us. I asked the dispatcher to give me the time and location of those extras and at which stations I was supposed to meet them—but he said he did not know!

Our colonel, who was aboard my train with his staff, told me to run the train anyhow. "Take a chance," he said. "We must be in Dagupan by twelve noon."

Well, I took the chance, running on "smoke orders." The Fate that watches over railroad men brought me through safely.

IN 1900 I was one of fifteen men from Company B ordered to China during the Boxer Rebellion. One day the whole fifteen of us were lined up on the station platform at Tientsin and a British officer bawled out:

"Are there any bloomin' locomotive drivers in this bunch of Yanks?"

There was no reply. Finally I called out: "I can drive an engine, sir!"

"Step two paces to the front," came the order.

The upshot of the matter was that I was promoted to the post of train pilot in the service of Her Majesty, Queen Victoria. It seems that there was a Mogul waiting to haul a twelve-coach train to Pekin, and no Tommies around to do the job. Hence the call for foreign talent.

I crossed the yards to get to the engine, meanwhile looking around for my train crew, switchmen and other railroaders—but no luck! And no train orders! This was war time, and it was up to me to wheel that train to Pekin, crew or no crew, train orders or no train orders!

Throwing off my coat I soon had a fire built in the firebox of the Mogul, with steam enough to take us clear through to Siberia. While I was building the fire and oiling around the old engine, seven fast express trains rolled by into Tientsin station.

I pondered over the wisdom of heading up those tracks without some kind of instructions from a train dispatcher. Not knowing what might be using the rails, I was not keen to run into a "cornfield meet," to say nothing of a Boxer ambush. So I decided to wait for train orders, American standard.

Finally a British officer came running up, his swagger stick a-swishing as he ran. He stopped short, out of breath. I swung down onto the steps of the cab to meet him.

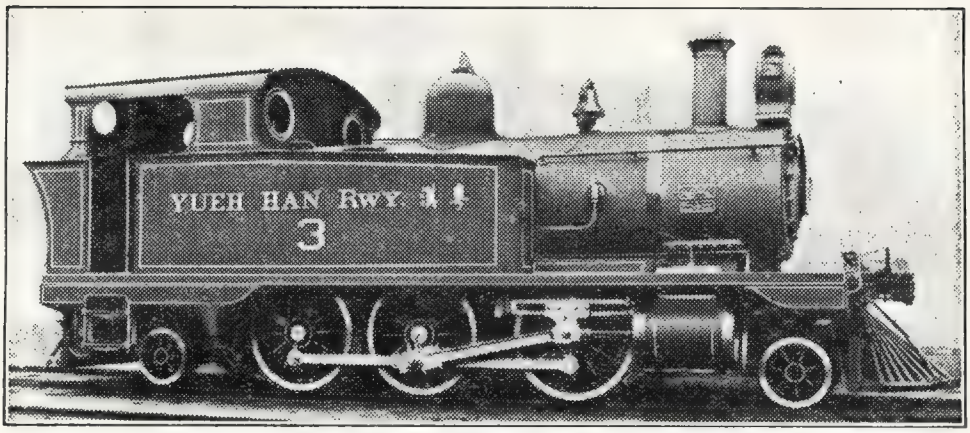
"Hi, you Yank!" the Queen's officer greeted. "What in the bloomin' blazes are you waitin' for?"

"My orders, sir," I answered.

"You have them," the Briton retorted impatiently. "You have been told to take this man to Pekin. We are ready. Now, roll 'er."

"Yes, sir, as soon as I get a conductor and the proper timetables," I said.

The officer flushed red as a beet. Evidently he was not used to having his authority questioned. "We can't



From Collection of Joseph Lavelle, 4615 66th St., Woodside, L. I., N. Y.
Tank Style (2-6-2T Type) Locomotive Built for the Yueh Han Rwy. of China as She Looked When She Came out of the Cooke Works in Paterson, N. J.

wait for them. Get started right away!"

"Sorry, sir."

"You refuse?" he demanded angrily, raising his voice.

"Yes, sir," I shouted back. "I'm not soldiering now," I explained. "I'm railroading, and that's different. I happen to know that this pike is single track, and I don't propose to play blind man's buff with all these trains hopping by every minute."

That twisted the lion's tail, all right. I had defied the Queen. And in war time, at that. They slammed me into the brig for insubordination, subject to a court martial, and punishable by death and other things.

IT seemed, however, that the High Command was more than anxious to see that train started for Pekin. Realizing that I had them licked, the High Command released me from the cooler and gave me a full crew—conductor and everything.

Among my crew were three Chinese coolies. They could not talk English, but an interpreter explained that two of them would fire the Mogul while the third piloted me over the road.

Evidently the pilot got the drift of our argument over train orders. Having no desire to get caught in a head-on collision, he became excited and bolted very suddenly. I never saw him again.

No other pilot was forthcoming, and we couldn't wait any longer, so I called out to my British conductor:

"When you get ready, just give me a highball!"

"I cawn't," wailed the Tommy. "There ain't a bally bar around here. Not even a glass of—"

After I initiated him into American methods of getting a train over the road, we finally got going and, outside of hitting a mule, we reached Pekin with no bloodshed. Even so, I felt like a hero.

For running that military train over a strange track and through enemy country, the British officer promised me recognition and a medal of some sort. That was thirty-four years ago, but the medal hasn't arrived yet. If the present ruler of England, King George V, reads your magazine and sees this true tale, I wish he'd write to me. The address is 442 Estero Cegado, Manila, Philippine Islands. I'm still waiting for that medal.

Suds

By E. M. SHALER

IT was a midsummer afternoon about thirty-five years ago. The office was a dilapidated old shack, built prior to the Civil War, conveniently adjacent to the busy dirty freight yards. The wallpaper was tattered in some spots and missing entirely in others; numerous patches of plaster had crumbled away, leaving the lath exposed; and over walls, ceiling, floor, and furniture there was a thick coat of soot and grime which had been accumulating during the decades. Every time the "goat" rumbled by with a string of cars, or a door slammed, clouds of dirt were jarred loose from the ceiling to sift down onto everything and everybody in the office.

During the rush hours six operators were on duty at once. The office was small, and the telegraph equipment and rickety furniture were crowded into it in such a way that a man coming in and a man going out could not get by each other unless one of them backed into a twelve by sixteen-inch clear space between two of the tables—which space had evidently been left vacant through an oversight.

When I started to work in this palace, drinking water for the operators was provided—if one of us went to the yard pump after it—in a decrepit and rusty old tin bucket which may have been clean when it was new, but had never been since.

There had been a long dry spell. The cotton and the corn were shriveled and brown in the fields, the air was still and lifeless, and the heat and dust were intolerable. Naturally, we thirsted a great deal; but the rusty old bucket with its lukewarm and befouled contents came in for a general share of the bitter cussing which we directed against the stingy railroad and everything connected with it.

The company loftily ignored all our complaints. Finally we chipped in and bought a water container ourselves. It was a very tidy device, with insulated wall, a tight cover, and a faucet. We also blew ourselves for a good-size drinking tumbler of thick glass and arranged for a chunk of ice to be delivered to us each day.

When it was installed we felt that the occasion called for a little celebration. Consequently we again chipped in; the old water bucket was cleaned and rinsed; and the call-boy, for a consideration of two bits, made several trips to the nearest saloon with the bucket and filled the cooler with beer.

THE initiation ceremonies started in the forenoon, and around two o'clock in the afternoon we were feeling informal, to say the least. The call-boy had earned another quarter, the cooler was again full, and we were looking forward to a very pleasant afternoon when in walked the superintendent of telegraph, who was supposed to be resting peacefully in the general offices, some hundreds of miles away!

Prior to his advent not one of us had touched a key for several hours, except perhaps to say "25," signifying: "I'm busy on another wire; quit bothering me, you egg-headed so-and-so!" But within fifteen seconds after the super

opened the door we were all working away with commendable speed and energy.

The superintendent of telegraph was short and fat and suffered greatly from the heat, perspired freely, and talked sparingly. Immediately upon entering the office he spied our nice new water cooler.

He made a bee line for it, while we all held our breath and hammered away at our keys for dear life.

My chair was nearest to the water cooler, and from the corner of my eye I could see the start that he gave when the first drops of liquid fell into the tumbler.

However, the official showed he was made of sterling stuff and could rise to an emergency, for he gave no shout of alarm, nor did he back away in horror.

To the contrary, he kept the tap open until the glass was full, then he raised it to his lips. We could hear a soft *gurgle-gurgle* which made us feel that all was not yet lost. Furthermore, he repeated the operation twice before he went to the door of the office. There he turned and surveyed us with a stern and accusing eye.

"Damn queer water!" he barked, and then he vanished.

We all began to make plans as to where we would go from there—until a few days later, when the manager of the office, who was also one of the culprits, received a penciled note from the super:

Referring to slight irregularity noted in your office few days ago, account extenuating circumstances this case no action will be taken but must not happen again.

I'm sure he was highly pleased with the volume of traffic which our bunch of ops handled from that time on.

S. P. REDEEMS 64-YEAR-OLD TICKET

THEY say all things come to those who wait, if you wait long enough. Out in Lincoln, Calif., is a man named Frank Elder, 79 years old. On July 10, 1870, when he was a kid of fifteen, Frank bought a railroad ticket from the Southern Pacific from Lincoln to Rocklin, for one dollar. It was just about a year after transcontinental service had been inaugurated with the meeting of the Central Pacific and Union Pacific railroads at Promontory Point, Utah.

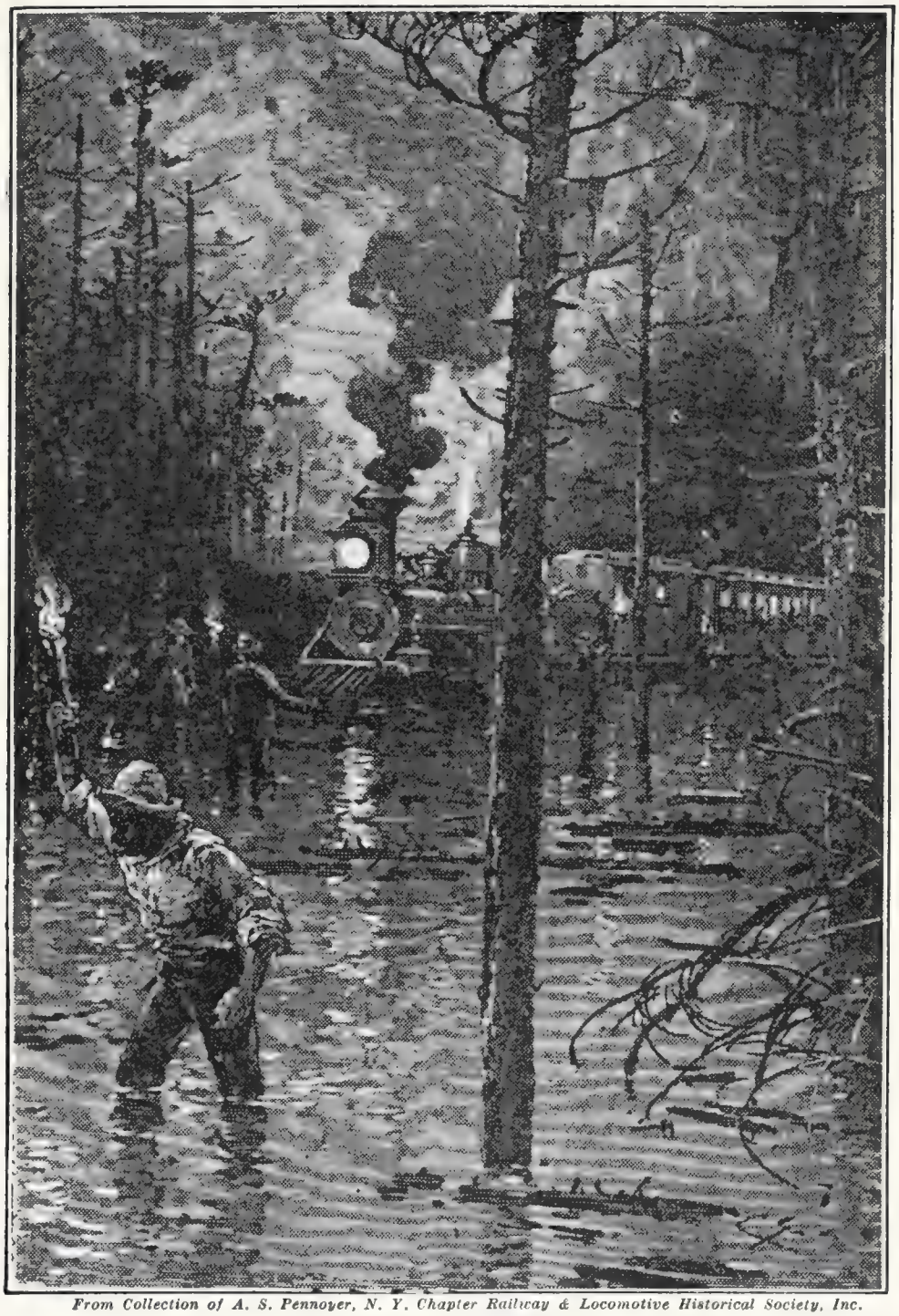
Frank Elder meant to take the railroad that day, but he didn't. A friend came by with a horse and buggy and took the lad to his destination. Frank saved the ticket, hoping to use it some day. But for years and years it lay in a bureau drawer, forgotten.

Then one day Mr. Elder read in a newspaper that the Central Pacific Railroad Company, which had now become the Southern Pacific, had redeemed a ticket thirty years old.

"I reckon they will give me a rebate on my old ticket, too," he said to A. T. Johnson, the station agent at Lincoln.

"Don't see why not," Johnson returned hopefully. "Now, if you will fill out this form I will make the necessary application."

After some red tape and gasps of surprise, the railroad company sent Mr. Elder a refund draft on Feb. 1, 1934, of one dollar, the full purchase price. The old gentleman chuckled at getting the money, until somebody said he could have sold the ticket for a higher price if he had gotten in touch with a collector of such relics.



From Collection of A. S. Pennoyer, N. Y. Chapter Railway & Locomotive Historical Society, Inc.

Brought to a Standstill

Back in the Spring of 1886 Floods Covered Railroad Tracks in Alabama for Many Miles, and Trains Had to Creep along behind Section Men Who Made Sure the Right-of-Way Was Still in Place. Here the Train Has Stopped, While Trainmen Debate What to Do

By the Light of the Lantern

Ask us what you want to know

RAILROAD questions are answered here without charge, but these rules must be observed:

(1) Not more than two questions at a time. No queries about employment.

(2) Owing to the number of queries, no engine specifications are printed except type, driver and cylinder dimensions, weight, and tractive force (t.f.).

(3) Sign your full name and address as evidence of good faith. We will print only initials, without street address.

(4) Always enclose a self-addressed stamped envelope, to facilitate our getting in touch with you if necessary.

(5) Answers to questions are published in this department. Don't be disappointed if they do not appear at once. This department is printed two months in advance of date of issue.

HOW much slack is there in an 80-car train?—T. B., Branchville, Md.

Depends to some degree upon the condition of the equipment. If it is fairly good the slack can be computed as follows: an inch of free play in each pair of couplers and 2 inches in each draft gear, or 4½ in. for each car. This would make about 30 feet in the whole train. If the train is started on a grade or with a jerk, and if all the cars, especially those at the rear end, are heavily loaded, the amount of slack temporarily might average more than 7 inches per car, or more than 46 ft. for the train.

WHAT were the largest driving wheels ever built?

(2) What and where was the heaviest load ever hauled?—J. T. L., Cincinnati.

(1) In 1847 a 4-2-2 type was built at the Crewe Works in England for the London & North Western Ry. This locomotive, called the "Cornwall," had driving wheels 102 inches in diameter. She was rebuilt in 1858 to 2-2-2 type and ran from Manchester and Liverpool until 1902. She is still preserved at Crewe, England.

(2) Doubtless somewhere in the United States, but nobody knows for certain when, where, and by what type of engine. From time to time we print letters dealing with this subject in the "Spot" Department.

HOW does the Chicago Great Western rank among the Midwest freight carriers?

(2) Friends tell me that railroads are going to the dogs as passenger carriers. Is this true?—J. H., Des Moines, Ia.

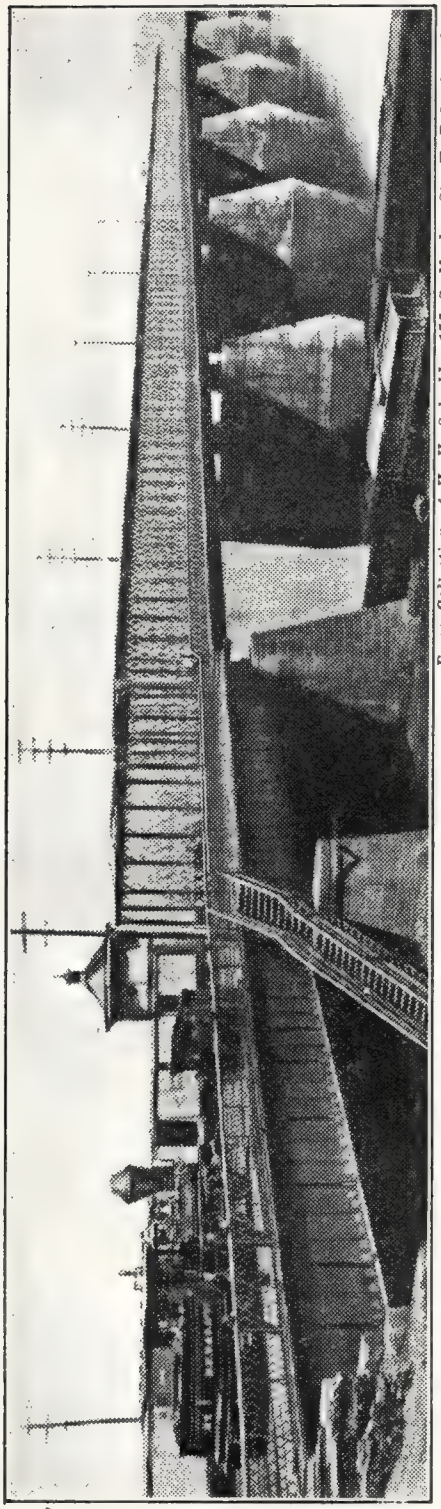
(1) In 1933 the CGW freight revenue was $13,099,407, which is slightly greater than the CStPM&O and almost twice that of the M&StL, but under that of all the other Class I roads with which it competes. However, it must be borne in mind that its other competitors are much bigger systems, and that they derive a great deal of their income from carrying freight in sections of the country other than that through which the CGW operates.

(2) For a while it seemed as though they were right. In 1933 railroad passenger earnings were the smallest since 1900, and had been declining for several years, but in the last 5 months of the year they showed an upturn, and for the first 2 months in 1934 almost all passenger carrying roads in the country reported decided gains in passenger revenue over the same period in 1933. Apparently the decline in passenger traffic has stopped. Moreover, lower rates and air-conditioned equipment should cause a greater upturn, even though the railroads do not hope to get back the business which has been lost to private automobiles and many bus lines.

ON p. 43 of your March issue was a photo of old-time Santa Fe compound No. 1812. Her main driver counterbalance is almost at right angles to the main pin. Why is this?

(2) Do engineers sit on the left side of the cabs of C&NW locomotives?—A. L. F., Santa Ana, Calif.

(1) No. 1812 was one of 57 similar balanced compound locomotives built by Baldwin. They



From Collection of H. H. Schadde, 155 S. Market St., E. Palestine, O.

The Old Wrought Iron Bridge of the Pittsburgh, Fort Wayne & Chicago Ry. (Now P. R. R.) across the Allegheny River at Pittsburgh in 1864

had 2 inside high pressure cylinders, located above the plane of the outside cylinders, connected to the main driving axle, and inclined at an angle of 7° in order that their main rods could clear the first driving axle. Thus it was necessary to place the wheel counterbalance in such a position that it would counterbalance both the inside and the outside crank pins.

(2) No, they sit on the right side. C&NW trains merely run on the left track of its double track section. This custom dates back to the early days of the line, when it was partly financed by British capital and adhered to the British custom of left hand operation.

N. S., Wheaton, Ill.—The Rock Island Southern, which runs between Rock Island and Galesburg, Ill., with several branches, and which is 81 miles long, is not connected with the CRI&P.

WHO owns the Alabama, Tennessee & Northern?

(2) In what capacity did Joseph Eastman serve on a railroad before he was appointed Federal Co-ordinator?—H. C. B., Jackson, Tenn.

(1) The AT&N has $3,916,560 worth of common and preferred stock outstanding. Who owns it does not appear in any of our information sources.

(2) None. He became a member of the Massachusetts Public Service Commission in 1915 and of the Interstate Commerce Commission in 1919.

WHAT is the entire value of the Lackawanna and the Lehigh Valley railroads?

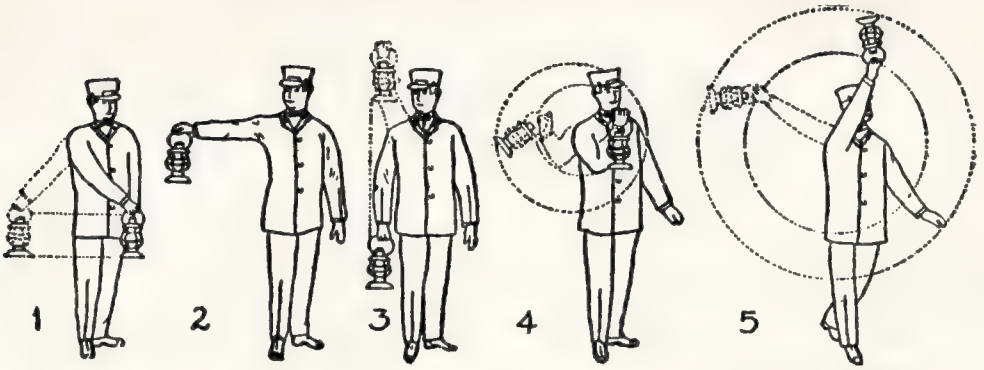
(2) What is the equipment of the LV, D&H and NYC?—R. L., Ithaca, N. Y.

(1) In 1918 the Interstate Commerce Commission valued the Lackawanna at $242,855,096, while in 1933 its total listed assets were $211,485,167. In 1917 the ICC valued the LV at $208,708,749; last year its total listed assets were $244,843,819. These figures include all subsidiaries.

(2) The LV has 581 locomotives, 22,572 freight, 632 passenger, 1,256 miscellaneous cars. D&H, 434 locomotives, 15,013 freight, 354 passenger, 577 miscellaneous cars. NYC, 2,637 locomotives, 114,475 freight, 3,058 passenger, 7,900 miscellaneous cars.

R. W., Seattle.—The Cumberland Railway & Coal Co., which runs from Parrsboro to Spring Hill Jct., N. S., is 32 miles long, has 6 locomotives. We have no data on them.

C. S. W., Miami, Fla.—The Florida East Coast was incorporated in 1892 as the successor to the Jacksonville, St. Augustine & Indian River RR. In 1899 it acquired the Tampa & Key West, and the Jacksonville & Atlantic. It was extended for many years, and in 1931 went into



© *American Ry. Assoc.*

Here Are the Standard U. S. Hand, Lamp and Flag Signals. In the Diagrams the Trainman Is Shown with a Lantern, but the Signals Are the Same When Given with a Flag or by Hand. No. 1, Swung across the Track, Means "Stop" (the Hand or Flag Movement May Be above the Shoulder). No. 2, Held Horizontally at Arm's Length, "Reduce Speed." No. 3, Raised and Lowered Vertically, "Proceed." No. 4, Swung Vertically in a Circle at Half Arm's Length across the Track, "Back Up." No. 5, Swung Vertically in a Circle at Arm's Length across the Track While Running, "Train Has Parted." No. 6, Swung Horizontally above the Head While Standing Still, "Apply Air Brakes." No. 7, Held at Arm's Length above the Head While Standing Still, "Release Air Brakes."

receivership. See December, 1933, issue for article on the overseas extension; March, 1934, issue for complete roster of locomotives.

(2) Here are the steam roads running in Florida:

Atlanta & St. Andrews Bay
Alabama & Western Florida
Atlantic Coast Line
Alabama, Florida & Gulf
Apalachicola Northern
Escambia (lumber road)
Florida & Alabama (lumber road)
Florida East Coast
Georgia & Florida
Georgia Southern & Florida (Southern)
Jacksonville, Gainesville & Gulf
Jacksonville Terminal
Louisville & Nashville
Live Oak, Perry & Gulf
Marianna & Blountstown
Port Everglades
Seaboard Air Line
South Georgia
St. Louis-San Francisco
Southern
Tavares & Gulf
Trans Florida Central

WHAT *are the names and locations of the American Locomotive Co.'s plants?*

(2) What is the largest electric engine on the NYC; by whom built?—B. W., Fishkill, N. Y.

(1) The American Locomotive Co. (Alco) is at present operating only its Schenectady Works, Schenectady, N. Y., although the Brooks Works, at Dunkirk, N. Y., has not been dismantled, and the Richmond Works, Richmond, Va., is still standing. The Pittsburgh Works, Allegheny, Pa., was sold in 1924; the Dickson Works, Scranton, Pa., in 1910; the Manchester Works, Manchester, N. H., in 1917. The Rhode Island Works, Providence, R. I., discontinued manufacturing locomotives in 1905, and was then leased to the American Auto Co. It manufactured war materials between 1913 and 1917, when it was closed and sold. For history of the Cooke Works, see our June, 1933, issue.

(2) Nos. 1200, 1201, 0-4-4-4-4-0 type, which weigh 354,000 lbs. and were built by Alco-General Electric.

R. N. B., Des Moines.—The Des Moines Union was incorporated in 1884, opened in 1886. It operates 4 miles of main line terminal track around Des Moines, and has a total 28 miles of track, 9 locomotives and 14 cars. A year ago it had 232 employees.

WHY *aren't railroad cars, etc., equipped with more flange? Would not doing this decrease the danger of derailment?*—C. T. D.

The answer is obvious: experience has seemed

to prove that it isn't necessary. It is interesting to note, however, that elevated cars, etc., whose derailment might cause more serious accidents than usual, are equipped with a larger flange than is standard on U. S. steam railroads.

WHERE does the St. Louis-San Francisco get the San Francisco from? It doesn't run anywhere near the latter city.

(2) How about the Ohio in Mobile & Ohio? —A. W., Chicago.

(1) & (2) Don't take the names of the railroads too seriously. When they were first built the people who organized them thought they'd like to build them to a certain point, and so they put the name of that point in the name of the railroad. Sometimes they didn't get there and sometimes they got farther. For instance, the Atchison, Topeka & Santa Fe was built clear into Los Angeles on the West and into Chicago on the East. The Baltimore & Ohio runs many miles east of Baltimore and a lot farther west than Ohio. On the other hand, the St. Louis-San Francisco is still a long way from San Francisco; the Mobile & Ohio didn't even get to Indiana; the Pennsylvania & Atlantic runs neither to Pennsylvania nor the Atlantic Ocean. Glance through the railroad timetables and you'll find lots of others in the same fix.

M. M., Philadelphia.—The Stewartstown RR. runs between Fawn Grove and New Freedom, 47 miles south of Harrisburg, Pa.; the Kishacoquillas Valley runs between Belleville and Lewistown, 60 miles west of Harrisburg.

W. D. S., Lovelady, Tex.—Class M-1a, 4-8-2 type, of the Pennsylvania RR. is equipped with tenders holding 22,090 gals. water and 32 tons coal.

WHY does the percentage of steam pressure used in tractive force formulæ differ with various engines? For example, the t. f. of the PRR Class C-1 is based on .78 of the boiler pressure, Class I-1s on .75, etc.

(2) What does the letter "P" stand for in the classification of the PRR L-5 electrics?—J. M. P.

(1) Usually .85 of the steam pressure is used in determining the t. f. of a locomotive. This figure takes in account the loss of effective pressure due to condensation, friction, etc. When the locomotive is equipped with limited cutoff, however, the figure is lowered, and it depends upon the amount of cutoff. For example, the t. f. of an engine with 50% cutoff (the usual amount is 90%) would be figured on the basis of .75 of steam pressure.

(2) It designates the type of service the engine is used for: in this case, passenger. For instance, in Class L-5PAW, "L" stands for type of engine; "5" for the variant of type; "P" for passenger service; "A" for alternating current; and "W" for Westinghouse, name of manufacturer.

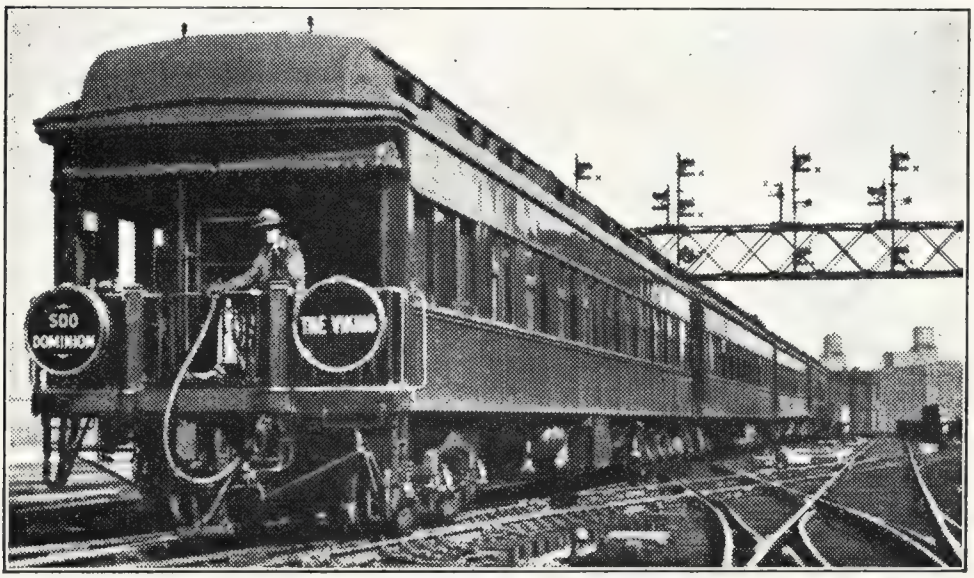


Photo by Railroad Photographs, 5 Appian Way, Allston, Mass.

Two Trains in One! Between Chicago and St. Paul the Canadian Pacific—Soo Line Train, the "Soo-Dominion," Is Operated as a Part of the Chicago & North Western's "Viking." Here She Is—or They Are—Backing into the Chicago Terminal. Note the Two Tail Signs

D. G. B., S. Pasadena, Calif.—Santa Fe 3400-3449 series, 4-6-2 type, have 25 x 28 cylinders, 210 lbs. pressure, 73-in. drivers, exert 42,800 lbs. t. f. Weight varies from 300,950 lbs. —317,300 lbs.

P. J. F., London; C. W. G., Brooklyn; C. H., Elmhurst, Ill.—Following is list of railroads and color of passenger rolling stock:

Road	Color
AB&C	Pullman Green
New York Central	Bottle Green
Santa Fe	Olive Green
Northern Pacific	Olive Green
Southern	Black
(except Crescent Ltd. which is green)	
Virginian	Dark Green
PRR	Tuscan Red
Illinois Central	Dark Olive
Louisville & Nashville	Black
Western Pacific	Olive Green
Seaboard Air Line	Pullman Green
Florida East Coast	Dark Green
Lehigh Valley	Olive Green
Canadian National	Dark Green
Canadian Pacific	Dark Red
Chesapeake & Ohio	Pullman Green
Erie	Olive Green
Lackawanna	Olive Green
Soo Line	Dark Red

Others in future issue.

R. R., Minot, N. D.—The Chesapeake & Ohio has 125 miles of train control-equipped track. It has no remote control despatching system, but has 3 hump yards equipped with electro-pneumatic switches, one of which is equipped with car retarder.

WHAT are America's 5 largest passenger stations?—C. F. L., Ottawa, Canada.

Depends upon what your standard is: cost, dimensions, or number of tracks. There is very little information on this subject, but following is a list of the six largest from standpoint of number of tracks:

Station	No. of tracks
Grand Central, N. Y. City	49
Union Station, St. Louis	42
Union Station, Washington	32
South Station, Boston	28
Union Station, Chicago	24
PRR Station, N. Y. City	21

WHAT was the railroad which was built northwest from Hyattsville, Md.?—D. P., Baltimore, Md.

The Washington, Westminster & Gettysburg was incorporated in 1908 to construct a line from Hyattsville (Brentwood) via Mt. Airy and Westminster to Gettysburg, Pa. No line was ever operated, although 5 miles were graded at Hyattsville and a half mile of track was laid west of Hyattsville station in 1911 and another quarter mile in 1914. All property has been sold to satisfy claims. J. B. Colegrove was first president and W. H. Saunders, second. Walter Atlee of Baltimore was chief engineer. Although originally projected as a steam line, the builders later decided on electricity.

WHAT is the press fit allowance for locomotive axles and crank pins?

(2) What is the shrinkage allowance for tires?
—E. D. B., Diamond Point, N. Y.

(1) Shop practice generally determines this matter. On the NYC approximately 7 to 9 tons' pressure per inch of diameter is applied to cast iron hubs, and 12 to 16 tons per inch of diameter to cast steel hubs.

(2) The shrinkage allowance for tires varies from 1/80 in. per foot of diameter for a 38-in. wheel center to 1/60 in. foot of diameter for a 90-in. wheel center. The variation is exactly in proportion to these limits.

D. E. W.—On Jan. 1, 1934, the NYC Lines (not NYC) owned or leased 4,592 locomotives, of which 2,976 were in service.

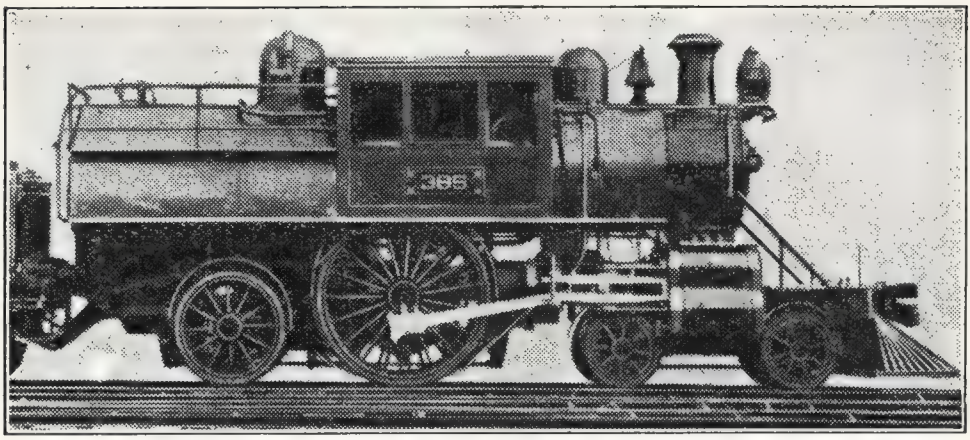
RECENTLY a C&NW brakeman told me that the C&NW bridge about 4 miles west of Boone, Ia., is the highest double track bridge in the world. Is he right?

(2) Do you have any information on a C&NW wreck about 4 years ago near Arlington Heights?
—E. P., Elmwood Park, Ill.

(1) Yes. According to H. W. Frier, of the C&NW traffic dept., there is no structure both double tracked and as long as the Boone Viaduct which is any higher. It is 190 ft. high, 2,685 ft. long and was built in 1901.

(2) No. Suggest you refer to local newspapers of that date, either in a library or a local newspaper office.

J. B., St. Louis.—Space would not permit us to print all the roads which have been absorbed into the Missouri Pacific System. Here are the most important lines of those still retaining their identity: New Orleans, Texas & Mexico; Beaumont, Sour Lake & Western; St. Louis, Brownsville & Mexico; New Iberia & Northern; Houston & Brazos Valley; International-Great Northern; San Antonio, Uvalde & Gulf; Sugar Land; Rio Grande City; Asherton & Gulf; San Antonio Southern; Asphalt Belt; Iberia, St. Mary



From Collection of W. D. Stowman, 7444 Forrest Ave., E. Germantown, Philadelphia, Pa.

High-Wheel "Bicycle" Type Passenger Engine No. 385 Used on the Philadelphia & Reading (Now Reading) in the 90's. See Answer to "E.C." on Next Page for History and Specifications. Both This and the 378 Were Later Rebuilt to 4-4-2 Types

& Eastern; San Benito & Rio Grande Valley; Houston North Shore.

(2) The Missouri Pacific has 1,155 locomotives.

K. C. H., Portsmouth, N. H.—The Boston & Maine was incorporated in 1835 in New Hampshire, in 1841 in Mass., and in 1843 in Maine. The original line from Wilmington to South Berwick, Mass., was opened in 1843. Gradually it constructed more lines and gradually took over many subsidiaries. Among these were the Boston & Lowell, leased in 1887 for 88 years; the Concord & Montreal, leased in 1895 for 91 years; the Fitchburg, leased in 1900 for 99 years; the Conn. River, leased in 1893 for 99 years; the Lowell & Andover, leased in 1874 for 99 years.

W. L. Z., Los Angeles.—The Pacific Coast Ry. was incorporated in 1882 as a consolidation of a former line of that name and the San Luis Obispo & Santa Maria Valley. It runs from Port San Luis to Los Olivos, Calif., 76 miles. It is 3-ft. gage.

(2) The Pacific Electric has 53 locomotives (1 steam), 2,286 freight, 724 passenger and 90 miscellaneous cars. The Southern Pacific Co. has 1,603 locomotives, 50,828 freight, 1,686 passenger and 4,128 miscellaneous cars. SP lines in Texas and Louisiana have 543 locomotives, 16,871 freight, 379 passenger and 644 miscellaneous cars. The Santa Fe has 1,859 locomotives, 89,599 freight, 1,524 passenger and 5,514 miscellaneous cars.

S. S., Peruque, Mo.—Burlington 7000 series, 4-8-2 type, has 74-in. drivers. Class O-3, Nos. 5300-5359, 2-8-2 type, has 28 x 32 cylinders, 64-in. drivers, 180 lbs. pressure, weighs 314,700 lbs. without tender, exerts 59,000 lbs. t. f.; Class O-5, Nos. 5600-5607, 4-8-4 type, has 28 x 30 cylinders, 74-in. drivers, 250 lbs. pressure, weighs 461,600 lbs. without tender, exerts 67,500 lbs. t. f. —80,700 lbs. with booster; Class S-3, Nos. 2950-2974, 4-6-2 type, has 27 x 28 cylinders, 74-in. drivers, 180 lbs. pressure, weighs 269,200 lbs. without tender; Class P-5, Nos. 2550-2570, 4-4-2 type, has 21 x 26 cylinders, 78-in. drivers, weighs 194,800 lbs. without tender, exerts 26,200 lbs. t. f.; some in this series have 74-in. drivers, exert 27,660 lbs. t. f. The 3000 series was discussed on pp. 85, 86 of our May, 1934, issue.

H. H. C.—Boston & Albany Classes L-3 and L-3a, Nos. 300-317, 2-6-6T type, have 23 x 24 cylinders, 63-in. drivers, 200 lbs. pressure, exert 34,260 lbs. t. f.

W. W., Newton Center, Mass.—We are printing herewith illustrations of the standard railroad hand signals. Whistle signals will appear in future.

(2) Boston & Albany Class D-1a, Nos. 400-404, 4-6-6T type, has 23½ x 26 cylinders, 63-in. drivers, 215 lbs. pressure, exerts 41,600 lbs. t. f.

R. L., Hampton, N. B.—Several correspondents have written in about U. S. railroads which use track sprinklers. The Southern Pacific has employed them for many years. They are turned on when crossing dusty stretches of the Nevada desert, Mojave Desert and in southern Oregon. The SP also uses a different type sprinkler to wet tie ends when descending grades in the Sierras, in order to prevent sparks from the brake shoes from setting fire to the ties. The Northern Pacific and the Great Northern use track sprinklers on some of their passenger tenders in main line service. The Union Pacific, like the SP, uses

them not only to settle dust while approaching stations, etc., but also on long stretches of arid desert country. We thank D. L. Joslyn, Lloyd Anderson, H. E. Hall, H. P. Childers, Jack Ruthergien, and R. M. Hale for this information.

F. C. H.—CRRofNJ Nos. 831-835, 4-6-2 type, have 26 x 28 cylinders, 79-in. drivers, 230 lbs. pressure, weigh 326,470 lbs. without tender, exert 46,841 lbs. t. f. No. 787, 4-6-0 type, has 23 x 28 cylinders, 69-in. drivers, 220 lbs. pressure, weighs 225,600 lbs. without tender, exerts 40,260 lbs. t. f.

(2) Roster of the Reading will appear in a future issue.

A. J. K., Olyphant, Pa.—The Delaware & Hudson was incorporated in 1823 as the Delaware & Hudson Canal Co. Not until 1899 was the name changed to the Delaware & Hudson Co. Today it is 855 miles long, runs between Rouses Point, N. Y., and Wilkes-Barre, Pa., with branches to Binghamton, Lake Placid, Rutland, Albany and Troy, as well as many shorter spur lines.

L. G. A., Toronto.—Canadian National Class S-1b, Nos. 3250-3299, 2-8-2 type, formerly Canadian Government Nos. 2850-2899, has 27 x 30 cylinders, 63-in. drivers, 180 lbs. pressure, weighs 277,550 lbs. without tender, exerts 53,100 lbs. t. f. Class S-1f, Nos. 3455-3465, 3467-3504, formerly Grand Trunk Nos. 550-560, 562-599, has same specifications except that it weighs 283,000 lbs., has 175 lbs. pressure and exerts 51,637 lbs. t. f. No. 3510, formerly Grand Trunk No. 490, has same as S-1f. Class O-18a, 0-6-0 type, Nos. 7424-7473, formerly Grand Trunk 1749-1798, has 22 x 26 cylinders, 51-in. drivers, 175 lbs. pressure, weighs 174,000 lbs. without tender, exerts 36,703 lbs. t. f. No. 7141, formerly Grand Trunk No. 1667, has 22 x 26 cylinders, 56-in. drivers, weighs 153,384 lbs. without tender, has 165 lbs. pressure, exerts 31,460 lbs. t. f. Class J-3b, 4-6-2 type, Nos. 5049-5079, formerly Grand Trunk Nos. 169-199, has 23 x 28 cylinders, 69-in. drivers, 185 lbs. pressure, weighs 226,000 lbs. without tender, exerts 33,750 lbs. t. f. Classes K-3a & b, Nos. 5557-5597, formerly Grand Trunk Nos. 200-242, have 23 x 28 cylinders, 73-in. drivers, 195 lbs. pressure, weigh 229,000 lbs. without tender, exert 33,631 lbs. t. f.

B. H. W., San Francisco.—According to W. E. Butler, 2508 First St., San Diego, Calif., Arcata & Mad River 2-4-2 type No. 6 was built by Baldwin in 1901, has 12 x 18 cylinders, 38-in. drivers, weighs 60,000 lbs., is 45¼-in. gage.

R. W.—The Long Island RR. is 100 years old this year, having been incorporated in 1834. Ten years later it was opened to Greenport. Gradually lines were constructed and acquired, until now it owns practically all the steam lines on Long Island. It has 396 miles of track, is owned by the PRR.

(2) List of railroads operating in New York State in future issue.

J. O'B., Jamaica, N. Y.—The largest locomotive in the official Long Island RR. roster is Class H-10s, 2-8-0 type, Nos. 101-119, which has 26 x 28 cylinders, 62-in. drivers, 205 lbs., weighs 247,500 lbs. without tender, exerts 53,197 lbs. t. f. However, since the Long Island is really a part of the PRR System, PRR-lettered engines, among them many Pacific types, are used, and thus the largest locomotives on that road are probably PRR engines. Indeed, Class H-10s itself is composed of engines formerly on the PRR roster.

D. E. B.—One of the narrow gage roads nearest Reading, Pa., is the Tionesta Valley, whose headquarters are at Sheffield, Pa.

(2) See answer to E. C. for Reading 4-2-2.

R. K. T., San Francisco.—Santa Fe No. 3600, 4-6-2 type, has 26 x 26 cylinders, 200 lbs. pressure, 73-in. drivers, weighs 288,700 lbs. without tender, exerts 40,900 lbs. t. f. Nos. 1247-1252, 4-6-2 type, have 17 & 28 x 28 cylinders, 220 lbs. pressure, 73-in. drivers, weigh 226,700 lbs. without tender, exert 32,800 lbs. t. f. Nos. 1482-1500, 4-4-2 type, have 22 x 26 cylinders, 200 lbs. pressure, 73-in. drivers, weigh 229,500 lbs. without tender, exert 29,400 lbs. t. f. Nos. 1398, 1399, 4-6-2 type, have 23½ x 28 cylinders, 220 lbs. pressure, 73-in. drivers, weigh 269,390 lbs. without tender, exert 39,650 lbs. t. f. The 3700 series, 4-8-2 type, weigh about 350,000 lbs. without tender and have 210 lbs. steam pressure.

E. C., Dublin, Ireland.—Philadelphia & Reading (now Reading) Nos. 378 and 385, 4-2-2 "Mother Hubbard" type, had 13 & 22 x 26 cylinders, 84½-in. drivers, weighed 115,000 lbs. The former was built by Baldwin in 1896; the latter in 1895. Both were used in fast passenger service between Philadelphia and Jersey City, 90 miles in 105 minutes, including stops.

NEXT MONTH

"THE SAWDUST TRAIL"

Illustrated Feature by CHARLES IRVING CORWIN

All about the Thrills and Romance of Railroading the Circus

Steam Locomotives of the Baltimore & Ohio System

Including the Alton; Baltimore & Ohio Chicago Terminal (B&OCT); Buffalo & Susquehanna (B&S); Buffalo, Rochester & Pittsburgh (BR&P); and Staten Island Rapid Transit (SIRT)

Photo by H. Fagerberg, 97-22 109th St., Richmond Hill, N. Y.

This "Dummy" Type Is the Oldest Engine on the B. & O. Roster, and Is Probably the Oldest Locomotive on the Motive Power List of Any Road in the Country. She Was Built in 1865, Rebuilt in 1888

Class sub-Division	Numbers	Cylinder Dimensions (Inches)	Driver Diameters (Inches)	Working Pressure (Pounds)	Weight without Tender (Pounds)	Tractive Force (Pounds)	Date Built
Class A: Atlantic or 4-4-2 Type							
A-2A	1474	22 x 26	80	210	180,000	28,100	1903
A-3	1424–1449	22 x 26	74	205	212,260	29,600	1910
A-6	1487, 1488 (BR&P)	20½ x 26	72	200	196,000	25,200	1901
A-7	1489–1491 (BR&P)	19½ x 26	72	200	176,600	23,300	1903
A-8, A-8A	1492–1496 (BR&P)	20½ x 26	73	200	195,000	25,400	1906, 09
A-9	1484, 1485 (B&S)	19 x 26	69	195	150,800	22,600	1904
A-10	1486 (B&S)	19 x 26	73	195	150,000	21,300	1903
Class B: Ten-Wheel or 4-6-0 Type							
B-7	1306, 1307	21 x 26	62	165	133,000	25,100	1890
B-8, B-8A	1350, 1352, 1353, 1355, 1357-1359, 1362, 1363, 1367, 1369, 1370, 1372-1374, 1376-1378, 1381–1383, 1386, 1389, 1391, 1343, 1393–1396, 1365, 1388	20 x 26	62	170	140,825	24,300	1891–93
B-8Tob	1364	20 x 26	66	175	140,100	23,400	1892
B-14	1310	21 x 26	79	190	154,230	23,400	1896
B-17A	1332	20 x 28	78	200	148,900	24,400	1901
B-18C, CA, D, E	2000, 2003, 2007, 2010, 2012, 2014, 2016, 2019, 2020, 2022-2024, 2026, 2028, 2031, 2032, 2034, 2037-2044, 2046, 2049, 2057, 2061, 2065, 2068	21 x 28	70	200	173,400	30,000	1901

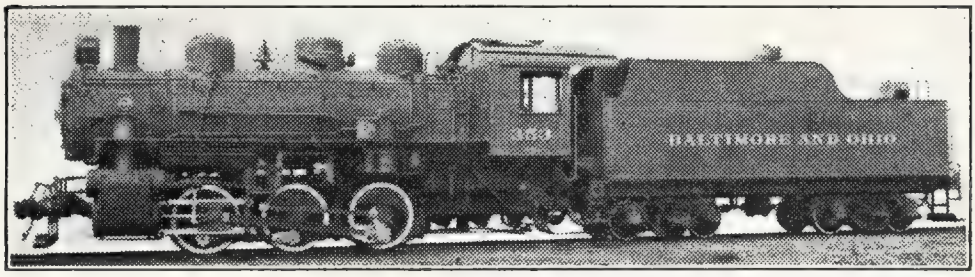
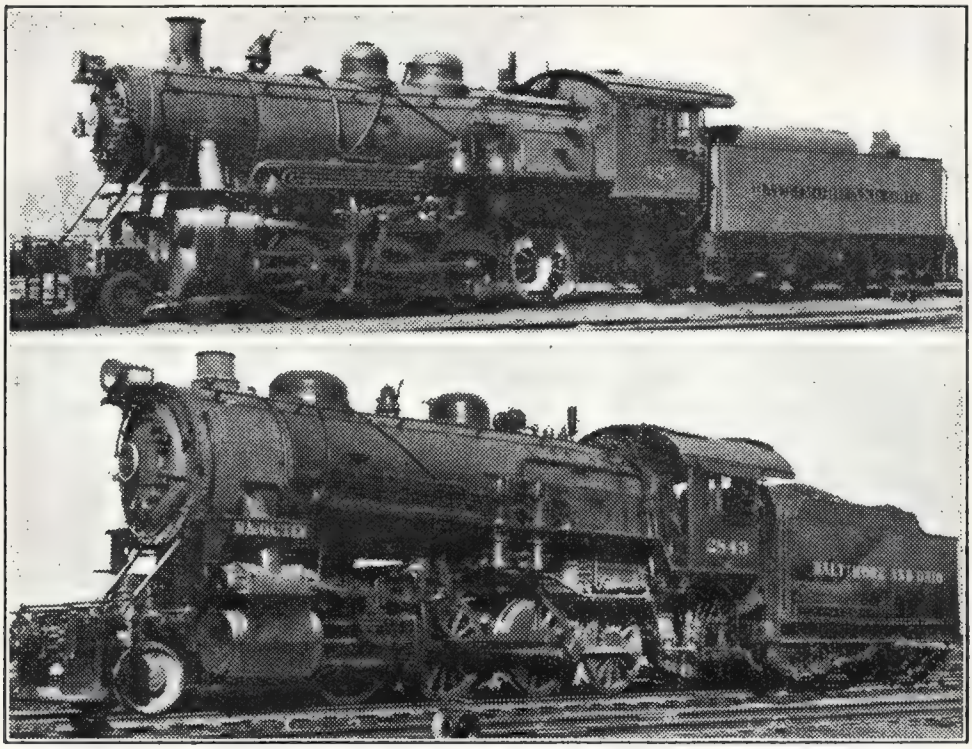


Photo from Joseph Lavelle Collection.

No. 353, One of Forty Light Switchers Built in 1919 under the United States Railroad Administration

Class sub-Division	Numbers	Cylinder Dimensions (Inches)	Driver Diameters (Inches)	Working Pressure (Pounds)	Weight without Tender (Pounds)	Tractive Force (Pounds)	Date Built
B-38	157, 158, 160, 162	18 x 24	54	152	113,100	18,500	1894–99
B-54	241, 245, 251	19 x 26	57	180	136,000	25,000	1902–03
B-55	163	17 x 24	56	190	111,000	20,000	1906
B-56	164	18 x 26	56	180	130,350	21,200	1909
B-57	165–170	21 x 28	69	190	197,000	28,900	1916
B-58	171–180	19 x 28	57	200	163,000	30,000	1916
	Class C: Four-Wheel Switcher or 0-4-0 Type						
C-1	22	17 x 24	50	150	90,400	17,700	1884
$C\text{-}4_{44}$	72, 73 (No. 73, Alton)	14 x 24	44	175	68,000	15,900	1893
C-11	37	17 x 24	50	145	74,600	17,100	1893
C-13	76	17½ x 24	50	189	104,400	23,500	1902
C-14	70	17 x 24	51	145	76,000	16,800	1890
C-16, C-16A	96–99	19 x 24	48	180	109,100, 120,000	27,600	1912
	Class D: Six-Wheel Switcher or 0-6-0 Type						
D	29, 30 (SIRT)	19 x 28	52	180	161,080	29,700	1908
D-1	316	19½ x 22	44	140	97,000	22,600	1865
D-3	1104, 1106, 1114, 1122, 1131	19 x 24	52	165	100,600	23,400	1890–93
D-7	1137, 1138, 1141–1145, 1147–1149, 1151, 1152, 1155, 1156, 1158–1163, 1165, 1166, 1168–1172, 1174-1176	19 x 24	52	180	126,800	25,600	1901–03
D-13	1198	19 x 26	51	180	119,000	28,200	1900
D-22	57	18 x 24	51	140	91,000	18,100	1892
D-23	1180–1184	19 x 28	52	180	161,100	29,700	1906
D-26	1185	19 x 26	51	180	132,000, 135,500	28,200	1905, 09
D-26A	1186, 1188, 1189, 1192, 1195						
D-30	350–389	21 x 28	52	190	163,500	38,400	1919
D-38	339–343	22 x 28	57	180	163,000	36,400	1916
D-40, D-40A	82, 85, 79–82, 84, 86, 87, 89, 90, 92, 95 (Alton)	20 x 26	51	180	144,100	31,100	1900, 03
D-42	61, 62, 63	20 x 26	51	200	144,000	34,600	1909
D-43	59, 60 (Alton)	19 x 26	51	180	154,900	31,200	1913
D-44	390–394 (BR&P)	20 x 26	51	180	144,100	31,200	1904
	Class E: Consolidation or 2-8-0 Type						
E	28 (SIRT)	20 x 28	50	180	158,000	38,000	1906
$E\text{-}8_{60}$	1211, 1212, 1214–1216, 1221, 1219, 1223–1226, 1228, 1230, 1232, 1234, 1235, 1237, 1239, 1240	21 x 26	50	170	134,200	33,100	1892–93
	(No. 1219 has 160 lbs. pressure, exerts 31,200 lbs. t. f.)						
E-11A	1603	21 x 28	54	169	166,000	32,800	1896
E-13B	1630–1639	21 x 28	54	180	173,500	35,000	1896
E-14	1274, 1278, 1279, 1288, 1294, 1517, 1525, 1529, 1531, 1532	21 x 26	51	180	148,000	34,400	1897–98
E-15	1505, 1511, 1513	21 x 26	51	175	148,000	33,400	1897
E-16A	1647, 1680, 1698	21 x 28	55	190	168,700	36,300	1898–99
E-18A, E-19A	1901, 1904, 1905, 1912, 1913, 1915, 1918, 1919, 1922, 1928, 1929, 1933, 1937, 1786, 1795, 1820, 1823, 1829, 1836, 1888	21 x 30	55	200	174,500, 181,400	40,900	1900–03

Class sub-Division	Numbers	Cylinder Dimensions (Inches)	Driver Diameters (Inches)	Working Pressure (Pounds)	Weight without Tender (Pounds)	Tractive Force (Pounds)	Date Built
E-21, E-22	1943, 1944, 1947, 1952	22 x 28	54	180	172,500, 176,000	33,400	1899–1901
E-24, E-24A	2200, 2202, 2209–2212, 2217, 2225, 2232–2235, 2237, 2244, 2247, 2252–2257, 2259, 2261, 2264–2267, 2270, 2273–2275, 2277, 2279, 2282, 2283, 2290, 2291, 2297, 2298, 2307, 2308, 2310–2317, 2321, 2325, 2332, 2337, 2339, 2341, 2343, 2344, 2346, 2350, 2354, 2355–2357, 2361–2363, 2369–2372, 2375, 2377, 2381, 2385, 2389, 2397	22 x 28	57	198	193,500	40,000	1902–04
	(No. 2265 has 196 lbs. pressure, exerts 39,600 lbs. t. f.) (Nos. 2290, 2372 have 210 lbs. pressure, exert 42,400 lbs. t. f.)						
E-26	1539, 1544, 1558, 1560, 1561, 1563, 1565, 1568, 1572, 1575, 1576, 1579–1582, 1584, 1586, 1588, 1591, 1593, 1594, 1596, 1598	20½ x 28	56	200	162,200	35,700	1898–99
E-27, E-27A, E-27B	2503, 2508, 2509, 2512, 2516, 2517, 2521, 2528, 2531, 2533, 2535, 2545, 2546, 2548, 2549, 2559, 2564, 2566, 2571, 2575, 2577, 2578, 2582–2586, 2598, 2600–2607, 2611, 2621, 2622, 2624, 2627, 2628, 2632, 2639, 2642, 2645, 2649, 2651, 2652, 2654, 2657, 2667, 2672, 2676, 2680, 2681, 2684, 2685, 2692, 2697, 2699, 2701, 2703, 2709, 2736, 2747, 2748, 2762, 2781, 2782, 2817, 2875, 2891, 2900	22 x 30	62	205	208,500-220,370	40,800	1905, 06, 16
E-27C	2711, 2717, 2725, 2738, 2758, 2779, 2789, 2797, 2802, 2805, 2811, 2812, 2832, 2845, 2866–2868, 2870, 2872, 2888, 2894	22 x 30	62	215	220,370	42,800	1910
E-27CA, E-27D, E-27DA, E-27H, E-27J	2712–2716, 2718, 2719, 2721–2735, 2737, 2739–2741, 2743–2746, 2749–2757, 2759–2761, 2763–2778, 2780, 2783–2788, 2790, 2792–2796, 2798–2801, 2803–2810, 2813–2816, 2818–2831, 2833–2844, 2846–2865, 2869, 2871, 2873–2879, 2881–2887, 2889, 2890, 2892, 2893, 2895–2899, 2901–2913, 2520, 2527, 2529, 2534, 2537, 2550, 2555, 2556, 2561–2563, 2565, 2568, 2597, 2608, 2609, 2617, 2625, 2626, 2640, 2646, 2677, 2689, 2706	24 x 30	62	215	224,900, 226,550	50,900	1910, 05, 06
E-27DA, E-27H	2547, 2595, 2668, 2558, 2644, 2678, 2688, 2693, 2695	24 x 30	62	207	226,550	49,100	1905, 06
E-27X, E-27Z	2504, 2511	25 x 30	62	215	241,500	55,300	1927, 29 (rebuilt)
	(No. 2511 weighs 235,000 lbs.)						
E-29, E-30	1712, 1716, 1722	19½ x 28	57	200	174,500	31,800	1905
	(No. 1722 weighs 172,000 lbs.)						
E-31, E-31AA	2916, 2919–2924, 2926–2929, 2932, 2933	22 x 30	61	200	216,000	40,500	1910
E-31B	2914, 2915, 2917, 2918, 2925, 2930, 2931	24 x 30	62	207	232,000	49,100	1910
E-32	1737–1740	21 x 26	50	180	142,800	35,100	1904–05
E-33, E-34, E-35	2934–2951	22 x 28	51	190	173,900-183,000	42,900	1903–06, 1912-14



Photos by T. T. Taber, 43 Hillcrest Rd., Madison, N. J.

Nos. 425 and 2843, Both 2-8-0 Type. At the Time the Latter Was Snapped She Was Being Used by the B. & O. C. T., and Has Its Initials Hung above Her Cylinders

Class sub-Division	Numbers	Cylinder Dimensions (Inches)	Driver Diameters (Inches)	Working Pressure (Pounds)	Weight without Tender (Pounds)	Tractive Force (Pounds)	Date Built
E-36	2852, 2953	23 x 28	52	200	202,000	48,408	1916
E-37, E-39	413, 415	20 x 24	49	190	135,000	31,700	1903, 06
	(No. 415 has 180 lbs. pressure, exerts 30,100 lbs. t. f.)						
E-38, E-40	414, 419	22 x 28	51	200	178,600, 188,200	45,200	1907, 18
E-40	418	22 x 28	51	185	178,600	41,800	1907
E-41	425–434	22 x 28	57	200	195,100	40,400	1916
E-46, E-46A	2660–2665, 2612–2615 (Alton)	21 x 32	57	200	189,000, 197,300	42,200	1900
E-47, E-47A	2957–2966 (Alton)	22 x 28	57	200	200,000	40,400	1902
E-48	2967–2986 (Alton)	22 x 30	57	200	207,400	43,400	1905, 06
E-49	2987–2996 (Alton)	22½ x 30	62	200	228,000	41,700	1909
E-50	2997–2999 (Alton)	21 x 28	51	185	192,000	38,100	1910
E-51	3000–3002, 3004, 3006, 3008 (BR&P)	18 x 26	48	180	135,500	26,900	1894
E-55	3025	21 x 28	57	200	197,000	36,800	1905
E-55A, E-55B, E-56, E-56A, E-57, E-57A	3027, 3029–3032, 3035, 3037–3044, 3046–3048, 3051–3061, 3065–3067, 3071, 3073, 3074, 3076–3080, 3082 (BR&P)	21 x 28	57	200	194,000-200,500	36,800	1905-07, 1909-12
E-58A, E-58B	3083, 3088, 3092, 3094 (BR&P)	22 x 28	56	200	175,000	41,100	1901, 03
E-60, E-60A	3100–3142 (B&S)	21 x 28	52	200	176,500-185,000	40,400	1904–08

To Be Concluded Next Month

What Is Your Hobby?

"Mine Is Collecting Engine-Picture Stamps and Railway Mail Postmarks," Says

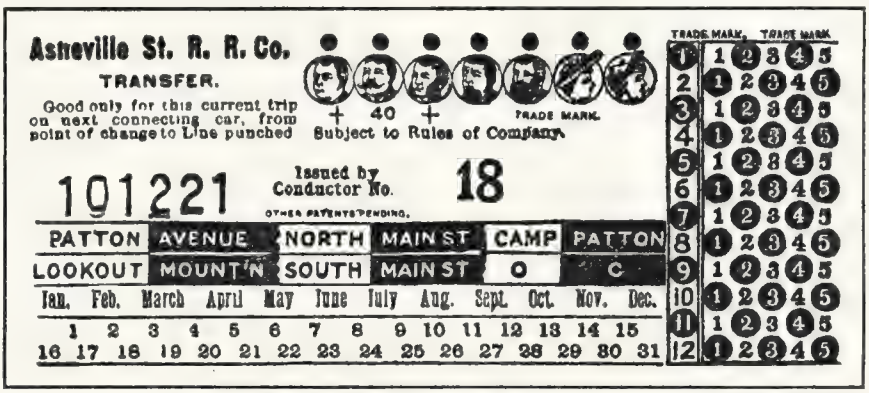
CHARLES IRVING CORWIN

THERE are many railroad hobbies besides building models and laying out miniature systems, collecting pictures of engines, trains, stations, etc. Some fans make their own snapshots, some buy or trade with other collectors, some clip material from magazines or newspapers and paste it into scrapbooks.

Many save timetables, calendars, railroad insignia, passes, tickets, train orders, employees' timecards, maps, railway mail postmarks, excursion leaflets and other advertising matter, railroad company magazines, *The Official Guide of the Railways*, brotherhood journals, RAILROAD STORIES and the old RAILROAD MAN'S MAGAZINE, other railroad books and periodicals, poems, Currier & Ives scenes, various old prints, stamps, currency, metalware, souvenir novelties and similar objects which depict engines or trains —in fact, almost everything you can think of which pertains to the iron road. Even street-car pictures, tokens and transfers are sought by thousands of collectors all over the world.

Most of these hobbies are included in the broad field of the International Engine Picture Club. The subject of railroad stamps was covered briefly by Freeman H. Hubbard in RAILROAD MAN'S MAGAZINE for Jan., 1931, under the heading of "Collecting Engine Pictures"—the article which started the I. E. P. C. An Egyptian set of historical stamps was illustrated and described by W. S. Boggs in the Dec., 1933, RAILROAD STORIES.

This branch of philately is so highly specialized that the writer knows of only five individuals (including him-


Asheville St. R. R. Co.
TRANSFER.
Good only for this current trip on next connecting car, from point of change to Line punched
+ 40 +
TRADE MARK.
Subject to Rules of Company.
101221
Issued by Conductor No.
18
PATTON AVENUE NORTH MAIN ST CAMP PATTON
LOOKOUT MOUNT'N SOUTH MAIN ST O C
Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
TRADE MARK. TRADE MARK.

From Collection of Paul Van Iderstine, 67 5th St., South Orange, N. J.

Street Car Transfer Used in Asheville, N. C., 40 Years Ago. Note the 7 Portraits. The Conductor Punched the One Which Looked Most Like the Passenger, for Identification on the Connecting Trolley Car

From Collection of K. Gus Smarey, Suttons Bay, Mich.
This 3-Foot-Gage Curiosity, Now at Traverse City, Mich., Was Built in 1878 by Porter, Bell & Co., Pittsburgh, Pa., and Was Last Used in the Glen Haven Canning Factory

self) who have large collections. Stamps showing locomotives are issued singly and in sets. Among the countries represented are the United States, Canada, Newfoundland, Panama Canal Zone, Argentina, Ecuador, Peru, Colombia, Brazil, Belgium, France, Russia and Spain.

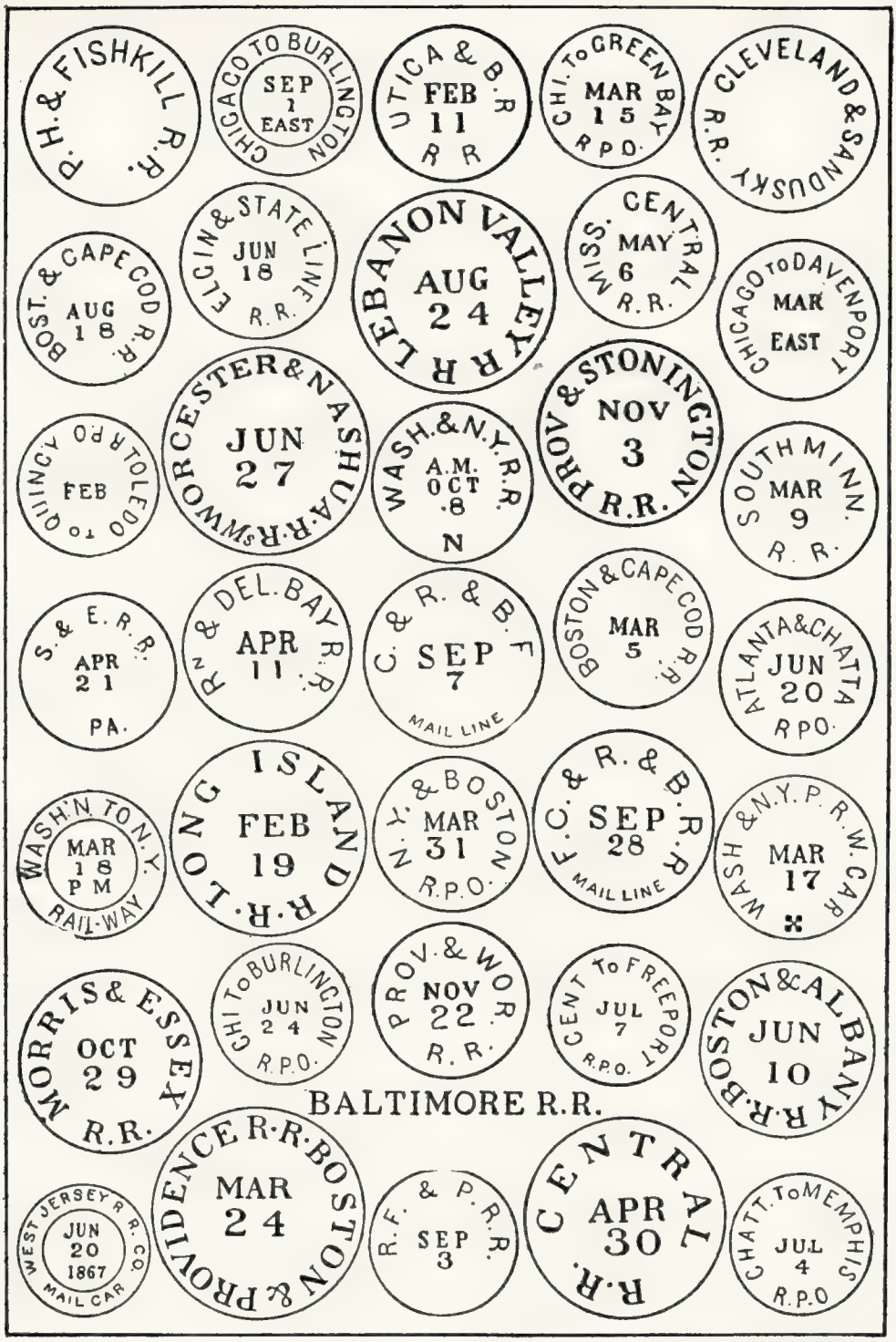
Even India and Mozambique have locomotive-picture stamps, while the common Chinese junk stamps show faintly an engine and train on a causeway at the horizon. Greece and Abyssinia (Ethiopia) issued stamps with a bridge in the background on which can be discerned railroad trains.

It is a great game watching for the new issues and carefully examining old stamps in the hunt for tiny locomotives. Collectors are developing a check list of all known varieties. Some are very thorough in their work. Besides assembling fine copies of the stamps they also gather together every bit of data available on the history involved—why the stamps were issued, what locomotives are illustrated, where they were made, etc.

AN offshoot of philately is the collection of railroad post office (R. P. O.) postal markings. The background of this hobby is interesting.

The American Railway Mail Service was started in 1862 and some of its earliest records were destroyed in the Chicago fire of 1871. Mail in lock boxes, padlocked chests and sealed pouches was carried as early as 1832 on the old Camden & Amboy R.R., now part of the Pennsy system, but it was transported like baggage or freight. It was not sorted or canceled *en route,* so all such mail only bore the postmarks and cancellations of the stationary post offices. Traveling post offices, on the other hand, "face," sort and distribute. They also have their own distinctive postmarks.

The first railroad postmark was used on the emergency route between Hannibal and St. Joseph, Mo., on the road


P.H. & FISHKILL R.R.
CHICAGO TO BURLINGTON SEP 1 EAST
UTICA & B.R. FEB 11 R R
CHI. TO GREEN BAY MAR 15 R.P.O.
CLEVELAND & SANDUSKY R.R.
BOST. & CAPE COD R.R. AUG 18
ELGIN & STATE LINE JUN 18 R.R.
LEBANON VALLEY R.R. AUG 24
MISS. CENTRAL MAY 6 R.R.
CHICAGO TO DAVENPORT MAR EAST
TOLEDO TO COLUMBUS R.P.O. FEB
WORCESTER & NASHUA R.R. JUN 27
WASH. & N.Y.R.R. A.M. OCT 8 N
PROV. & STONINGTON NOV 3 R.R.
SOUTH MINN. MAR 9 R.R.
S. & E.R.R. APR 21 PA.
R. & DEL. BAY R.R. APR 11
C. & R. & B.F. SEP 7 MAIL LINE
BOSTON & CAPE COD R.R. MAR 5
ATLANTA & CHATTA JUN 20 R.P.O.
WASH'N TO N.Y. MAR 18 P M RAIL-WAY
LONG ISLAND R.R. FEB 19
N.Y. & BOSTON MAR 31 R.P.O.
F.C. & R. & B.R.R. SEP 28 MAIL LINE
WASH. & N.Y.P.R.W. CAR MAR 17
MORRIS & ESSEX OCT 29 R.R.
CHI TO BURLINGTON JUN 24 R.P.O.
PROV. & WOR. NOV 22 R.R.
CENT TO FREEPORT JUL 7 R.P.O.
BOSTON & ALBANY R.R. JUN 10
BALTIMORE R.R.
PROVIDENCE R.R. BOSTON & MAR 24
R.F. & P.R.R. SEP 3
CENTRAL R.R. APR 30
WEST JERSEY R.R. CO. JUN 20 1867 MAIL CAR
CHATT. TO MEMPHIS JUL 4 R.P.O.

Courtesy of Stamps Magazine.

Railway Mail Postmarks of About Seventy Years Ago

of that name. The first trip was made in September, 1862.

In those days the mail was carried by rail only as far as St. Joseph, where letters for the Pacific coast were transferred to stage coaches for the balance of the overland trip. The time intervals between the arrival of a train and the departure of a stage was so short that, in sorting the mail at the local St. Joseph post office, the mail often missed the first stage and was considerably delayed. Then W. A. Davis conceived the idea of altering a baggage car and doing part of the "facing" and sorting *en route*.

In 1863 this emergency service was temporarily discontinued, probably as a Civil War measure. Credit is given to George B. Armstrong, of Chicago, for instituting the first regular, *permanent* railway mail service. Even during the Civil War, Chicago earned the right to be called the "Hub of the Railroad Wheel." For Chicago was a bottle neck for many roads and the volume of mail cleared through that city by the railroads caused congestion and delay.

Mr. Armstrong secured the coöperation of the Chicago & North Western Ry., which built the earliest combination mail and baggage car. The first route was from Chicago to Clinton, Ia., *via* the C. & N. W., and the maiden trip was made Aug. 28, 1864.

Some old R.P.O. postmarks are reproduced here. They show very little uniformity, either in comparative size, style of type, design, phrase or designations. They were not always circles —see, for instance, the "Baltimore R.R." Sometimes concentric circles were used.

The color of ink pad was not uniform. Most of those shown are in black or blue-black impressions. The "West Jersey R.R. Co. Mail Car, Jun 20, 1867," was blue.

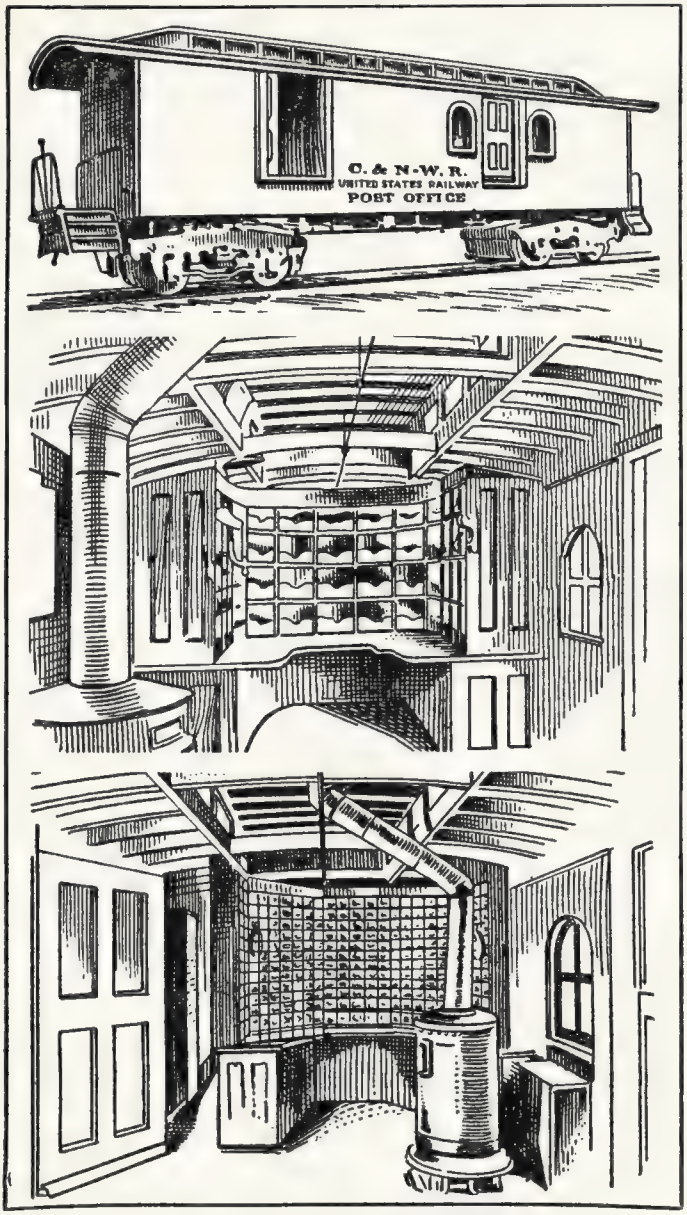
Early postmarks—not alone on account of the passage of time but also because the volume of mail was less in those days—are becoming increasingly rare and more valuable.

Old-time postal regulations were not so strict as are those of today. Just as local postmasters indulged their particular fancy by cutting corks into queer designs, fraternal symbols, initials, etc., with which to cancel mail, so the R.P.O. clerks requisitioned supplies as they wished. This accounts for the variety in design and colors of ink used.

At first most of the postmarks included the name in full—or at least the initials—of the railroad which operated the route. Later only the phrase R.P.O. was employed with the names of the terminal towns of the mail route. The "C. & B. & B. F." postmark added "Mail Line," the West Jersey included "Mail Car." Sometimes the letter "N" was used to designate northbound trips, the absence of "N" indicating a southbound trip. Another shows "East" spelled out. Some had "RAIL-WAY" hyphenated. Others used the well known initials R.R. One said, "P. R. W. Car," which evidently stood for postal railway car.

Today postal regulations demand that only black ink be used for postmarks, and the design is highly standardized.

A real distinction should be observed between postmarks and cancellations. The postmark is to permit tracing the route of a piece of mail matter, to help place the blame for incorrectly routed mail, whereas the cancellation



From "The Ry. Mail Service." Book by C. E. Carr.
The First Railway Post-Office Car, Showing Paper and Letter Cases

is merely to deface stamps so they cannot be used again. The cancellation used today is a lozenge-shaped design containing the initials R. M. S., with three horizontal lines above and three below.

MANY dealers make it their business to be on the lookout for stamps on "cover" (that is, on envelopes) which include certain postmarks. These would be submitted to you by mail on approval, if you give suitable references.

Moreover, this magazine and the stamp publications have classified advertising columns in which, for a few cents, you could run a request for such postmarks, either to buy or trade for them, or such requests would be printed without charge in the International Engine Picture Club pages.

Sometimes old correspondence tucked away in attics and storerooms contains envelopes on which are interesting railroad stamps or postmarks.

If you have occasion to travel for business or pleasure, you could get many new postmarks by mailing letters addressed to yourself, or have your friends write to you *via* R.M.S. The mailboxes on many station platforms are "tapped" by the R.M.S., while some mail cars have slots in their side, so you can mail or have a porter drop your covers directly into R.P.O. cars.

There are several methods of preserving and exhibiting such collections. Some people cut out the postmarks and stamps in uniform rectangles, leaving plenty of white space around the impression. A safer and better way is to save the whole envelope. This, of course, requires more space. Picture postcard albums or blankbooks make suitable albums. In the case of the blankbook, every other page can be partly removed to allow for the thickness of the "covers" envelopes.

Each envelope can be tipped in with gummed stickers, or regular postage stamp hinges may be used. (These hinges are sold for 10 to 15 cents per thousand.) This makes a neat appearance and permits both sides of the envelope to be examined. Back cancellations are required in the case of registered letters, and in red ink.

There are 435 steam roads authorized to carry mail and to operate 1,057 mail car routes, according to the postmaster general's latest annual report. The combined total length of the routes was 205,892 miles.

The number of routes was 85 less than the previous year's report, which means more than 85 postmarks recently discontinued. Others were changed.

Postmarks of particular interest to look out for are those issued on the first *fast* mail train. This service was inaugurated on the New York Central Lines (then the New York Central & Hudson River R.R.—Lake Shore Michigan Southern R.R. combination) on Sept. 16, 1875, *via* Albany, Syracuse, Buffalo, Cleveland, Toledo and Elkhart. The mail cars were named after the governors of the States through which the train was routed and much publicity attended the first run. A postmark of that date on that line would be a real "find."

The following chronology of pioneer runs will be a guide for collectors who want to get the rarer postmarks.

1832: First mail carried, C. & A., no postmark known.
1838: All railroads made post roads by Congress.
1862: H. & St. J.. first postmark.
1863: Route discontinued temporarily.
1864: First regular permanent R. P. O. service Aug. 28, Chicago to Clinton, Ia.; C. & N. W.
1864: First R. P. O. east of the Alleghenies, Oct. 15, N. Y.-Washington, on 3 roads: C. & A.; Phila., Wilmington & Baltimore; B. & O. (the first 2 are now part of the Pennsy.)
1865: N. Y.-Dunkirk on the N. Y. & Erie R.R. Philadelphia-Pittsburgh on the Pennsy.
1865-66: Chicago-Davenport on Rock Island R.R.; Chi-Quincy on Burlington; Chi-St. Louis on Chicago & Alton; Chi-Centralia on Ill. Central; Clinton-Boone on C. & N.W. (old Galena & Chi. Union); H. & St. J. run reinstated; Chi-Green Bay, Wis., on C. & N.W.
1867: Boone to Council Bluffs on the C. & N.W.
1869: Chi - Clinton; Clinton - Boone; Boone to Council Bluffs redivided into Chi-Cedar Rapids; Cedar Rapids to Council Bluffs.
1871-72: N. Y. & Harlem R.R. first given "unworked" mail for distribution en route.
1875: First fast mail—N.Y. to Chicago via N. Y. C. & H. R. and the L. S. & M. S.

The original six districts of the railway mail service in 1869 have been redivided into fifteen today and the routes have increased to 1,057. There are now 745 solid mail cars and 3,559 apartment mail cars on the steam roads alone. These cars are built and owned by the railroads and rented to the government, which mans them with 21,000 employees as clerks, inspectors, and executives. This service last year cost practically $89,000,000.

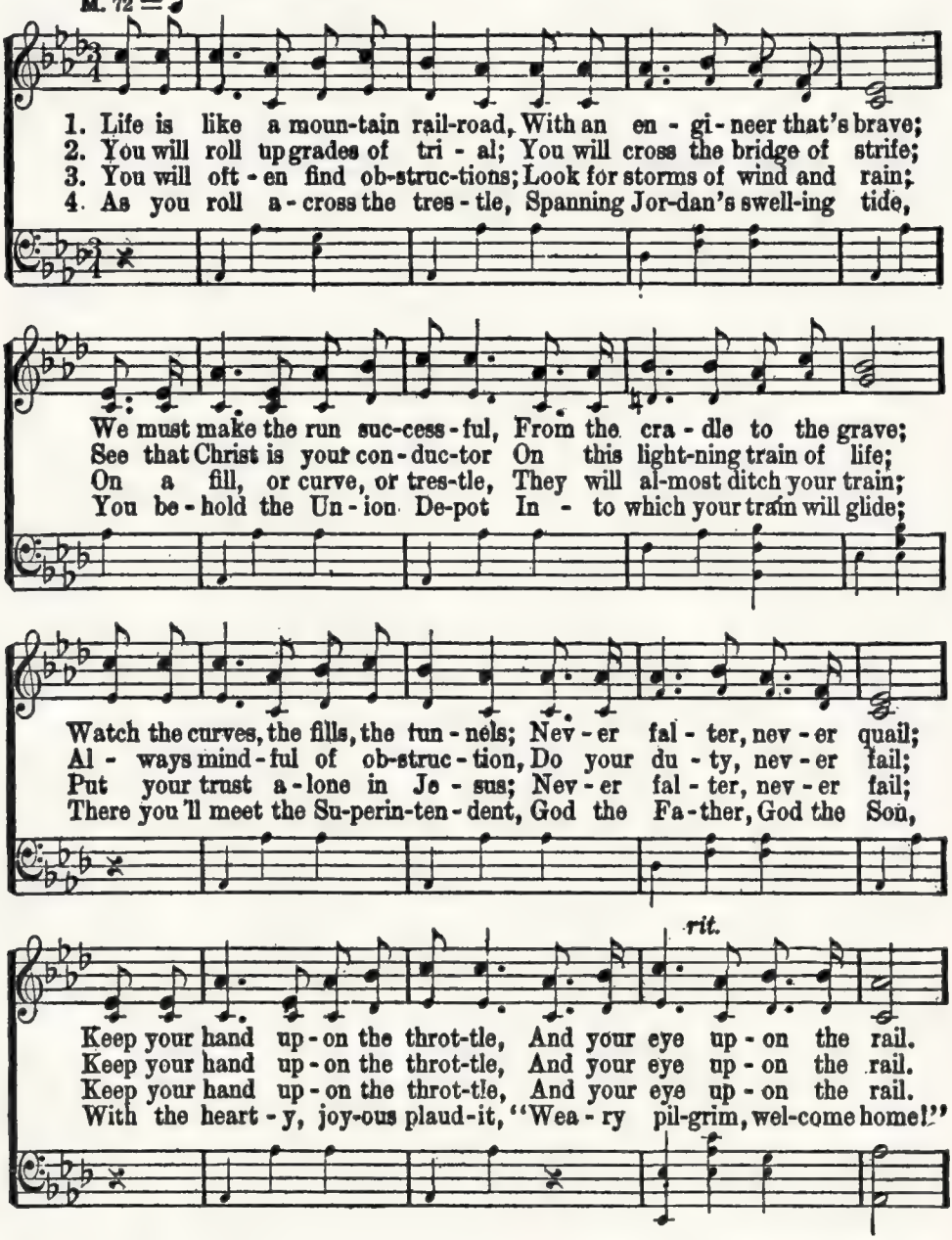
The writer, who may be addressed in care of RAILROAD STORIES, wants to get in touch with all who collect R.M.S. postmarks or postage stamps containing railroad pictures.

Life's Railway to Heaven.

(Respectfully dedicated to the railroad men).

M. E. Abbey. COPYRIGHT, 1891, BY CHARLIE D. TILLMAN. Charlie D. Tillman.

Solo or Duet. *Tempo ad lib.*

M. 72 = ♩

1. Life is like a moun-tain rail-road, With an en - gi - neer that's brave;
2. You will roll up grades of tri - al; You will cross the bridge of strife;
3. You will oft - en find ob-struc-tions; Look for storms of wind and rain;
4. As you roll a - cross the tres - tle, Spanning Jor-dan's swell-ing tide,
We must make the run suc-cess - ful, From the cra - dle to the grave;
See that Christ is your con - duc-tor On this light-ning train of life;
On a fill, or curve, or tres-tle, They will al-most ditch your train;
You be - hold the Un - ion De-pot In - to which your train will glide;
Watch the curves, the fills, the tun - nels; Nev - er fal - ter, nev - er quail;
Al - ways mind - ful of ob-struc - tion, Do your du - ty, nev - er fail;
Put your trust a - lone in Je - sus; Nev - er fal - ter, nev - er fail;
There you'll meet the Su-perin-ten - dent, God the Fa - ther, God the Son,
rit.
Keep your hand up - on the throt-tle, And your eye up - on the rail.
Keep your hand up - on the throt-tle, And your eye up - on the rail.
Keep your hand up - on the throt-tle, And your eye up - on the rail.
With the heart - y, joy-ous plaud-it, "Wea - ry pil-grim, wel-come home!"

From R. V. Wallace, Sharpsville, Pa.

THE DINKEY HOGGER

I AIN'T in the class with you brotherhood guys
With your main line and regular runs;
But I reckon the diff'rence is mainly of size,
A diff'rence of so many tons.

I'll admit, too, my dinkey's a cheap mess o' junk,
Rust-eaten and wheezy and old;
But it's this kind of pal that won't never flunk;
And is past bein' valued in gold.

It's the kind of pal that will stick by the game
As long as there's dump cars to haul;
If she's shaky a trifle, or goes a bit lame,
She's needin' some hay-wire, that's all.

Speed? Let me tell you, I can't let her out;
It's the orders of old Captain Dick;
If I could, I just reckon there ain't any doubt
That we'd make you main-liners look sick.

When you see her go zippin' all over the pit,
Like a mangy houn' dog chasin' flies;
Recollect that her looks never matter a bit,
Nor her action, nor even her size.

It's the work that she does that makes her score big,
And even old Cap will assert
She's a glutton for labor, a regular pig
For haulin' them dump cars of dirt.

And I'll just keep her hustlin' until we're all done,
Until we have put the job through;
And that's all that you boys on a regular run
With a regular engine can do.

—Charles Nicholas Webb

* * *

SPIRIT OF THE RAIL

A LONG-drawn whistle echoing through the night,
And lanterns flashing, green and white and red;
Reflection from the open furnace-door
Of vivid flame on blackness overhead;
The fireman's form outlined 'gainst background bright;
Huge clouds of steam, illumined, rising high;
The rhythmic monotone of rumbling wheels,
And air escaping, as if with a sigh.
They set my heart on fire—all these things;
They fill my eager soul with wild unrest;
They summon me o'er mountain, field, and fen,
To Northland and to Southland, East and West.
Although no guerdon shall reward my quest
When I have reached the end—the sunset trail;
I follow still the Lure—the Call—the Gleam—
The satisfying Spirit of the Rail.

—L. M. Dunham O'Neil

* * *

THE LOCAL FREIGHT

THEY'RE always writin' yarns about
Those fast and swell big trains;
How engineers propel 'em by
Their nerves and lightnin' brains;
But let me tell you fellers while
We idly congregate,
There's none of them got nothin' on
Th' local freight.

We've got no string of varnished hacks
Like those high-rollin' snaps,
Our old mill's inches deep with rust
And headed fer th' scraps;
But though we grind along the rails
Full sixteen hours late,
There's none of 'em got nothin' on
Th' local freight.

—C. C. McGill

* * *

THE RED AND THE GREEN.

A LITTLE child on a sick bed lay
And to death seemed very near.
Her parents' pride, and the only child
Of a railroad engineer.
His duty called him from those he loved,
From his home where lights were dimmed.
While tears he shed, to his wife he said,
"I'll leave two lanterns trimmed."

Chorus:

"Just set a light when I pass tonight,
Set it where it can be seen.
If our darling's dead, then show the red;
If she's better, show the green."

In that small house by the railroad side,
'Twas the mother's watchful eye,
Saw a gleam of hope in the feeble smile
As the train went rushing by,
Just one short look. 'Twas his only chance,
But the signal light was seen,
On the midnight air, there rose a prayer,
"Thank God, the light is green."

—Anonymous

Brass Hat

By N. F. BRANDHORST
Author of "Railroad Man," etc.

He Set Down His Lamp, Tore off His Coat, and Leaped into the Ice-Filled Water

A Gripping Story of an Official Who Was Hated by All His Employees

H. SHERIDAN, general manager, was a hard man to understand. You couldn't say he was a double-crosser, because he was as honest as they come. You couldn't say he was unfair, because he'd always listen to your side of the case. You couldn't even call him a rawhider. All the boys on the C. & C. who had worked for other roads had known worse slave-drivers than he.

For one thing, he was a stiff formal man. A typical company official that the boys call a "brass hat." Medium height, scarcely middle-aged, skin somewhat wrinkled, eyes blue, and a firm mouth that rarely smiled.

Sheridan was king of the C. & C.—to his train and engine men, to his section hands, to his stenographer, to his bookkeepers, and especially to himself. He never took orders from anyone except his president and the chairman of the board—and rarely from either of those two gentlemen. They knew a good thing when they had it, so they let him alone.

The C. & C. was a 200-odd mile streak o' rust with seventy-five locomotives, a thousand or so pieces of rolling stock, and several hundred employees. Mr. Sheridan ran the line efficiently and made it pay, made it live up to the fondest hopes of the men who owned the system.

But he just wasn't popular with the rank and file. When, on a warm summer evening, the conscientious G. M. would hop the caboose of No. 9, the westbound freight, the faces of the train crew would invariably drop. The men would answer his curt suggestions or questions with a polite "Yes, sir," or "No, sir," and be silent the rest of the time.

They'd even try to use good English when replying to him, and when talking among themselves within earshot of him. They'd struggle with substitutes for "I ain't," or "You and me."

They'd go to no end of trouble to *appear* busy.

MR. SHERIDAN might step into a switch shanty where the boys were eating or swapping lies. The instant he came in everyone would pipe down. The G. M. would utter a brief, well-enunciated "Good day," the boys would mumble "Good day, Mr. Sheridan," and the place would be silent until he left. They'd even stop eating while he hung around.

None of the boys tried to make friends with him. Nobody could, and nobody tried to size him up. That is, nobody except Conductor Jess Harper. Jess got closer to him than any other man on the C. & C., and even Jess doesn't quite understand.

It started the time that Jess's hot-blooded, happy-go-lucky older brother, Sam Harper, got in trouble. Sam had been called at 1 P.M. for No. 11, westbound time freight. He was rear brakeman and Slim Forney was conductor. They were highballing out of the yard, with a helper engine shouldering them over the hill, when Mr. Sheridan swung aboard. Sam and Forney were wisecracking and complaining about this and that, as usual, when the G. M. opened the caboose door.

"Good day," was the short official greeting.

Both men wheeled around and their grins faded. "Good day, Mr. Sheridan," they responded with little enthusiasm.

The official's quick, blue eyes shifted as he noticed everything in the caboose. His mouth was straight, his lips tightly pressed. Then he said: "Where do you meet Twelve?"

"Hay River," Forney replied as though accused of something.

"Hay River," repeated Mr. Sheridan coldly, hardly moving his lips.

"Yes, sir," Forney came back.

The general manager walked to the center of the car, disregarding the men in front of him, and climbed to the cupola.

Presently Sam Harper clambered up and sat down across from him. He pushed open the slide window and glanced along his side of the train. Everything was running smoothly.

It was a beautiful fall day. The air was hazy, the trees in the wide river valley to the right were brilliant yellow and red.

Sam Harper felt unusually good. This was his fortieth year at railroading — his tenth with the C. & C. —but he still had a youth's enthusiasm.

"Fine day, Mr. Sheridan," he called across the doghouse.

The official nodded, without a word. He seemed annoyed.

Sam watched the G. M. closely, curiously. Mr. Sheridan's eyes, he observed, were never still. Always alert, they seemed to notice everything. He was a competent executive. Even Sam admitted that.

Suddenly, while rounding a sweeping curve in the valley, the train

jerked wildly; the brakes went on with a mighty jar. They stayed on, and as the train ground to a halt the engineer sounded one long and three short whistle blasts—signal for the flagman to protect the rear.

Sam jumped to obey. Sheridan came down after him, but went out the front door of the caboose and headed for the engine.

"Hope he stays there the rest of the trip," Forney remarked as the brakeman gathered up his flagging equipment. "He gives me the creeps."

"He's got as much feeling as a cigar-store Indian," said Sam, hurrying back to flag.

The caboose was standing on a long tangent—straight track—and any train following could not help but see it in plenty of time to stop. Nevertheless, Sam counted off the required distance. Then he sat down on the rail and waited.

Ten minutes passed, and still no signal to return from his head end. Sam rolled a cigarette, fumbled around for a match, but had none.

He looked back at the caboose, then gazed in the opposite direction down the track. Not a bit of smoke in sight. Not a sound but the chirping of crickets and the faint baying of a dog far down in the valley.

No train was due for at least an hour. Mr. Sheridan had gone up to the engine. Sam hesitated, then decided to go back to the crummy for a light.

QUICKLY he covered the distance, keeping a wary eye open for trouble, and climbed the caboose steps. The matches were in plain sight on the table. He took them up and went outside. Pausing on the rear platform, he lit a cigarette.

At that instant Mr. Sheridan appeared on the ground, looked up coldly and demanded:

"You flagging?"

"Why—why, yes," Sam answered. "That is, I—"

"Get back and flag then!" the brass hat rapped out. "I shall assess you ten demerits for this," he added in an even tone.

"I tell you, Mr. Sheridan, I just came back here—" protested the brakeman.

"Please don't argue," interrupted the official as he turned away.

Well, that made Sam mad. He knew the G. M. was right. Rules are rules, and he had disobeyed the code of the railroad. But the humiliation at being caught by this iceberg, and on a mere technicality, infuriated him. Some other official could have penalized him twice as much, and the brakeman would have laughed it off.

For some strange reason Sam grabbed the G. M.'s shoulder and turned him around.

"Listen, Mr. Sheridan," he explained huskily, "ain't—aren't you kind of hasty? Come on, be a—"

The interruption came in a precise mechanical tone: "I told you to get back and flag."

Such coolness and utter lack of feeling made the veteran brakeman even angrier. He forgot that he was in the wrong, that the official was right. All Sam could see was the injustice to himself—the great, glaring affront that had been dealt him by his superior. He had put up with this young bantam's affronts as long as he could; and now, by Christopher, he'd have his say if it were the last thing he ever did.

"Why, you damn fool, you!" he burst out furiously. "You cold-blooded—"

"*Harper!*" Mr. Sheridan cut him

off. "Turn in your company property at the end of this trip," the official continued, without a visible trace of excitement. "Your time will be waiting for you."

There's no telling what the brakeman might have done if his conductor had not returned about that time. The G. M. stepped aboard the caboose and Sam calmed down as though he had been doused with cold water.

Already it seemed weird to him. Even now when he tells the story the old-timer says it was funny. He agrees that the super was in the clear. He admits he gets hot under the collar too easily. But he won't admit that he wasn't justified, or that he would have been far wrong if he had driven his ham-like fist into the even, tight-lipped, immobile features of Mr. H. H. Sheridan.

The general manager kept his word. Sam's money was waiting for him, together with a terse little note that announced he was no longer in the employ of the C. & C. Railroad Co. Reason: *insubordination.*

Nobody doubted the charge, and yet the notion got around that Sam was the goat and that of all the hard-hearted, skinflinty, narrow-minded brass hats who had ever sat on the other side of the glass-topped desk, Mr. H. H. Sheridan was the worst.

JESS HARPER was bitter about the deal his brother got, whether Sam had it coming to him or not. Sam was the easy-going type, had never saved anything, and had taken life too carelessly for a man with wife and kids. Times weren't so good now, and even in boom days very few railroads wanted to hire old men for train service.

Jess could see where future donations to his brother would be as necessary as they would be welcome. Naturally his feeling for Mr. Sheridan had crystallized into anything but good will.

That's why Jess said what he did when Mr. Sheridan got him on the carpet for the trivial offense of carrying an unauthorized rider in his caboose. But here's how it happened:

It was a chilly night in late autumn. Jess was fooling around the crummy, getting things in order, when a bum stepped in. The stranger had a kind of whipped-dog expression in his eyes that made you wonder what his story was. He wasn't an ordinary hobo—anybody could see that. One look and you felt sorry for the poor devil.

Experienced bums never ask conductors for rides. But this fellow pleaded:

"Could—could you give me a lift to Centerville? I—I've got to get there tonight."

"Who said we was going to Centerville?" the conductor boomed.

The bum's face fell. "I thought—"

Jess relented, his tone softened. "Sure, we're going," he said with a grin. "Get up in the front and make yourself comfortable."

The trip was without event. They went into a siding only twice—for No. 4 at Hay River and for No. 10 at Echo—and made the 140-mile trip to Centerville ahead of schedule.

Now, the C. & C. connected at Centerville with three larger lines, and at Calumet, the other end, with a big system. In addition to the profitable interchange business, it tapped a rich mining section and a fertile farming country.

Mr. Sheridan's office, which is to say the whole operating office, was located in Calumet, but Centerville was

a bigger city. It was only natural the stranger should be heading for that place.

Except to offer him a bite of lunch and a drink of hot coffee, Jess and his brakeman paid little attention to their deadhead passenger, who had sat quietly by himself the whole trip. The brakeman had not even talked with him, could hardly tell what he looked like.

As for Jess, he didn't notice that the fellow seemed in a hurry to get to Centerville—and of course he entirely overlooked the possibility that the stranger might have been in *too much* of a hurry!

When the train slowed down for the yard limit the bum was out on the front platform. When it stopped near the east end switch shanty to head in the lead he jumped to the cinders and hustled across the tracks and around the corner of a car. The trainmen didn't realize he was gone until the brakeman went in the front part of the caboose to get something or other from the locker.

"Our bird has flown," he remarked to Jess Harper.

Jess was sitting at his desk, pushing a pencil over one of Mr. Sheridan's special report blanks.

"Yeah," he answered briefly.

The brakeman took up his lanterns and stepped to the rear platform, steadying himself on the door jamb as the caboose swayed over the yard switches. When it rolled opposite an all-night beanery near the tracks, he dropped off, leaving his conductor to ride on to the yard office.

NOT until he returned to Calumet thirty hours later did Jess have occasion to think about the bum. In fact he didn't exactly think of it; the matter was brought to his attention very forcibly by the calm, efficient Mr. Sheridan. When he received the G. M.'s wire at a one-horse station along the way, Jess was puzzled; he couldn't imagine why he should be called on the carpet.

The brass hat did not keep him waiting long. Mr. Sheridan was a methodical man. Despite the volume of his work, he always had things well enough in hand to lay them aside a minute to avoid wasting some one else's time.

"Good morning," he said, nodding perfunctorily toward a chair.

Jess mumbled a reply and sat down. Unlike most officials you read about, Mr. Sheridan didn't clear his throat and fish around for words. His first question was:

"Who was the person you carried in the way car on your last trip west?"

"I didn't carry anybody," Jess denied instinctively, put on guard by the suddenness of the charge implied in the question.

Mr. Sheridan did not bat an eyelash. Funny, how cool he was. "Harper, why are you trying to lie out of it?"

"I'm not."

"Please don't argue. He was seen jumping from the forward platform of your caboose when it passed the switch shanty at the east end of the Centerville yard. Ordinarily I might have overlooked such an offense, but the police have every reason to believe this person was Stanley Miller."

"Stanley Miller!" Jess *was* surprised. Miller was the man who had escaped while waiting trial for first-degree murder. The papers had been full of it. But Mr. Sheridan was not there to chew over the day's news.

"I do not mean to imply that you were knowingly responsible for assisting him," the G. M. droned on, "but I

feel that if you had not been deliberately disobeying my written orders about carrying non-employees in way cars this would not have happened. Have you anything to say for yourself before I administer discipline?"

"You win," replied the conductor, a smile of contempt playing about his lips. "You're right—you're always right. That's the trouble with you. You're never wrong."

"Come, come," the official's voice was stern but not excited. "Stick to the question, please."

"I am sticking to it," Jess retorted. "The question ain't whether I'm guilty or not. I am, and I admit it. The question is whether or not I'm a human being. Well, I am too. Maybe you would have turned down a bum that night, but you and I are different."

Jess was hot-headed, like his brother, and he continued with increasing vehemence:

"The trouble is, you're nothing but a machine. You don't understand me. You don't understand nobody. You ain't human. That's why you ain't got a friend among your employees. There ain't a man on the C. & C.—"

Abruptly Jess broke off. His lips were quivering slightly, his face was red.

There was a ponderous, clumsy, suffocating moment of silence. For once the official tongue had failed to lash back; for once the official brain had been jumbled. Then Mr. Sheridan opened his mouth—hesitantly, for the first time.

"Harper," he said, "do you mean—are you speaking the truth?"

Jess grew panicky. Sam had been fired, and now his time had come. He sat still and stared at the brass hat. Then he licked his lips and looked down for a long moment at the pile of locomotive sheets on the desk. But not a word.

Mr. Sheridan was not dense. Though Jess Harper did not reply, his answer was clear, as easy to read as the locomotive specifications that lay in front of him.

Then Jess glanced up timidly. When he tells about it now, he says you could have floored him with a feather. Mr. Sheridan had never looked that way before. His face was changed so much you could hardly recognize it. The hard lines were gone; the features seemed troubled and soft and tired. Jess felt guilty and embarrassed, so he turned away.

Mr. Sheridan simply said:

"You may go now."

He didn't mention a thing about discipline, or the bum, or the question at hand. Jess was so glad to get out of the office that he forgot to notice Mr. Sheridan the second time or to tender a word of thanks.

WELL, it was some time before Jess told a soul about that. He was often tempted, but couldn't quite bring himself around to it. Why? He says he felt uncomfortable about it, and didn't want to be unfair to Mr. Sheridan.

Moreover, Jess Harper was still puzzled. Every day he had expected to find a letter of discipline in the mail, but none came. He decided to forget about it. He probably would never have opened his mouth on the subject if it hadn't been for the second time he got close to the man H. H. Sheridan. That second time came a few days later.

The G. M. and his troubles were farthest from the thoughts of Conductor Harper the night they called him to take No. 9 to Centerville. The ther-

mometer had dropped some twenty degrees during the day. In the afternoon the wind had shifted to the northeast, and by dusk it was snowing and blowing—the first snow of winter.

When Jess stamped into the yard office at 10.30 P.M. it was several inches deep, and had partly crippled the totally unprepared railroad.

Mr. Sheridan had gone home early that afternoon, but not because he thought he needed time off. He had given his housekeeper instructions to call him at 10 P.M. He knew the signs of a storm, and he considered it his duty to be on the job when that storm came.

This was not unusual in Mr. Sheridan, for he was really conscientious and a hard worker. But here again the boys took him wrong. They imagined his only reason for putting himself out was to check up on them. And here again you can't quite blame them.

Most of No. 9's comparatively light consist had come in from the connecting system early in the evening, so the train was almost ready at its scheduled departing time. As usual, however, "almost ready" meant any time within the next hour or so.

This being the case, Jess Harper hung around the yard office with his brakeman, Art Macdonald, while they waited for the frost-bitten east end switch crew to rustle up a few more loads and find a caboose. They amused themselves by haranguing Ike Kelsoe, the yardmaster.

"You better brush up on your English tonight," the Y. M. gloated. "Mr. Sheridan went home early today. That means he's liable to come poking his beak around here any time now."

Macdonald's face lengthened. "Fer Pete's sake, then," he urged, "get that train ready so we can highball outa town. We don't want him in our parlor tonight."

"Don't worry," chuckled Kelsoe. "You won't be accorded the great honor. Things will be tied so tight around here by morning that the pleasure will all be our'n."

"I hope so," was the brakeman's fervent reply. "I'd rather be snowbound up in the hills than put up with him." Then as an afterthought he asked: "Say, how does Frozen Face hold down that job, anyway? Everybody's against him, and he knows it."

The yardmaster arched his eyebrows. "How does any man hold down his job?"

Jess said nothing, though more than once it was on the tip of his tongue to mention a little of what he knew. In fact, he was just about to get off a deep one when the door opened and in walked Mr. Sheridan himself.

YOU never in all your life saw a night yard office change so suddenly. Feet went down from tables; voices were lowered or extinguished altogether; the call boy grabbed the phone and dialed a number; trainmen studiously scanned crew boards they knew by heart; and clerks almost broke the points off their pencils. Even the telegraph instruments seemed to chatter twice as fast as formerly.

The big brass hat noticed nobody in particular. He was too preoccupied with what he was doing. He got the information he wanted from Kelsoe, gave a few orders, heard several say, "Yes, Mr. Sheridan," and stalked out the door, apparently heading for the trouble down at the west end.

He did not see Jess Harper, although Jess was standing near the crew board, and Mr. Sheridan had examined it carefully while he was

there. Jess knew, for he was watching the general manager all the while. In fact, was eying him so intently that Macdonald remarked about it before Mr. Sheridan had hardly closed the door.

"Casey on a crutch!" he exclaimed. "Ain't you never seen that angel of calamity before?"

"That's just it," returned Jess slowly. "I've seen him, and more than once, too."

Just then the switch foreman breezed in to announce that their caboose was tied fast, their engineer was rarin' to go, and he hoped they got snowed in and froze stiff.

With such pleasant benedictions singing in their ears the trainmen went to work. The train had already been pumped up, and it was the matter of a few minutes to connect the air to the caboose and highball out of town.

Once in the open country the snow did not prove to be as bad as they expected. The big Mikado had plenty of reserve power, and the hoghead knew how to rap her into the drifts. Anyway, it was not the snow alone that troubled them most before that night was over.

What happened then might have happened any cold night, or on any night at all, or even in the daytime. This time it was storming—which made matters that much worse, or that much better, depending on how much you knew about it.

The big engine was in good shape, and the train was light. Even when they got up in the hills she kept the cars bowling along at a fast clip. They stopped twice in fifty miles—once for a meet at Pine, and then for the high trestle over Hay River. The rules required that every freight train come to a complete stop before crossing the structure and be inspected for loose or dragging brake beams. Hay River trestle was high—no place to derail a train.

The rules were not broken that night. Macdonald went over to the engine. Then he and the head end man got down in the snow and, in the feeble light of their lanterns, scrutinized the car trucks as the engineer pulled up to the bridge approach at a walk.

The brake beams were in good shape and the rigging in place. And if their being so could have guaranteed security from accidents that night, everything would have been all right. The train would have been in Centerville on time; Jess would have been back to work next time out; the boys would still be wondering; and Mr. Sheridan —well, good brakes and brake beams aren't the only factors in safe railroading.

AT the rear end a lantern flashed perpendicularly through the white, heavy air. The engine rumbled slowly out on the trestle, her headlight illuminating a snow-covered, snow-surrounded track that seemed to extend out into a world of white.

When the Mikado had passed safely over the tall structure the hoghead reached for the throttle lever and pulled it back a notch or two. Not to speed up the train before it had crossed, but to get enough momentum to hit the drifts on the other side hard enough to keep from stalling. The engine responded with a light tug that turned into a jerk as the impulse traveled the length of the train. The speed increased.

On the other side, a few car lengths to the west of the bridge, was a sand pit spur. Its switch, which faced westbound trains, was locked tightly; it

had not been touched since early fall. The pony truck of the Mikado passed over its frogs; the drivers, trailer, and front tender trucks followed with a great clatter.

Eight feet of space lay between the two tender trucks. The train took the thirty-sixth part of a second to cover that eight feet, even traveling as slowly as it was. But in that tiny period of time something happened to the iron bars which held the switch point.

Investigation showed that the cold had apparently crystallized the metal, and it had broken. When the tire of the wheel pressed against the point it snapped aside. The wheel turned away from the main line rail; the other wheel followed.

Bucked by the momentum of the hard-working locomotive and the moving train behind it, the truck swung out crazily. The tender kicked around like a mad horse. By the time the hoghead stopped his train a half dozen cars were badly derailed, and the tender hopelessly off the track as well.

The accident was nothing much to speak of. Until the big hook came, however, there was little to do. The head man had gone to Lumberton, a couple miles to the west, and had called the wrecker from Calumet.

Macdonald had trotted back across the trestle to flag, so Jess came ahead over the tops of the cars. He and the engineer lit a couple torches, poked around a bit under the tender, and gave it up as a bad job.

What made this wreck different from any other—what made it the wreck that Jess will never forget and the one which Mr. Sheridan can be thankful for all his life—was the arrival, on the wrecking train, of the efficient Mr. H. H. Sheridan himself.

The G. M. was everywhere at once, directing every move. He was firm, calm and precise. He noticed no one and yet saw everyone. He expected every man's best, but gave no praise.

And then, suddenly, came a loud crash. The wrecker, having pulled the rear end of the train across the trestle and back to a siding, had advanced and was rerailing the casualties. One of the cars hung over the edge of the structure. While the big hook was tackling the car behind, it jarred loose and fell to the bottom of the gorge! It landed at the edge of the river.

IMMEDIATELY Mr. Sheridan went to the end of the trestle and clambered down the bank, lantern in hand, to see with his own eyes the damage done to the car. And Jess Harper, as conductor of the train, followed not far behind.

The car had lit in what ordinarily would have been shallow water, but which now was mostly ice. This did not daunt the thoroughgoing Mr. Sheridan. Discovering that he would have to trust his weight to the ice on the half-frozen river to see what he wanted to see, he did not hesitate.

Jess was still a couple hundred feet away when he saw Mr. Sheridan's lantern shoot up and fall to the ice. He also heard a splash and cry.

Jess was no hero; he says so himself. He did exactly what any one of Mr. Sheridan's several hundred employees would have done. He forgot his own safety, forgot everything except the fact that a human life was in danger, and that he could help. He set down his lamp, tore off his coat, and leaped into the ice-filled water.

Today Jess swears it was nothing to get excited about. He says the river was shallow, the current was weak, and Mr. Sheridan would have got himself

out easily enough if he had known how to swim. He grins when you mention the cold water, or when you remark that it must have been awful.

When you suggest that his reward was a good one he smiles and says it was, and that all the boys have shared in it. And when you ask him what it is, he merely says it came from Mr. Sheridan. And that's as far as he goes, because he himself doesn't understand.

For Mr. Sheridan is still general manager of the C. & C. He still takes orders from nobody except the president and the chairman of the board.

But he is not the old brass hat. This Mr. Sheridan is the most popular man on the road. He is the man who invited the winner of the section hands' safety contest into his private car for dinner. He is the man who gave everybody a day off with pay to attend a big picnic, and who almost broke a finger trying to catch a baseball with his bare hands.

Ask any of the boys on the C. & C. about it, and they'll shake their heads and shrug their shoulders, and tell you to see Jess Harper. Jess will hem and haw and say he doesn't quite understand it himself. He'll give you the facts, and if you press him hard enough will venture the opinion that Mr. Sheridan simply woke up to himself. And that sums up the matter pretty well.

RULE G MODIFIED

IN 1914 I hit the boomer trail for the first time because of reduction in force on the B. S. & G. firemen's extra board, and landed a job on the P. & T., at Hammerella, Texas. It was November, and the road was doing a big business hauling citrus fruit from California. I passed the trainmaster's examination, also the company quack, was marked up about 3 P.M., and three hours later I was called for a yard engine job from 7 P.M. to 6 A.M., with one hour off for lunch.

We buckshotted and blasted box cars down different tracks till we got all the night trains made up, about 10 P.M. The switch engine was a hand-fired coal burner, and hard to keep hot. Every time the hoghead got a kick signal he snatched her wide open and the smokestack looked like Mount Vesuvius during an eruption. But after the night trains pulled out we lit out for the brewery. The switchmen loaded a 16-gallon barrel of beer on the back of the switch engine, and when we got to the switch shanty they unloaded it and took it inside. All started drinking, while the hoghead and I sat on the engine and watched through the door.

When they got feeling pretty good, they came out and asked the hoghead and myself to come in and join them. Being one of Carrie Nation's scratch bosses, my engineer refused. They wanted me to drink, but I didn't dare if the hoghead didn't. They kept drinking and finally one of the switchmen suggested that they either get another engine crew that would drink, or all of them would pull the pin and draw their time. The yardmaster pleaded with them not to quit, for he had been working short-handed days and nights, and this was the first time in a month he'd had a full crew on both jobs. He knew a drunken boomer switchman was better than none.

They guzzled a few more drinks, and our foreman said: "Let's take this crew to the roundhouse and stand pat for a crew who'll slop up." The other engine crew were now in the switch-shanty enjoying themselves, as they were both boomers.

We headed in the roundhouse track, and the switch foreman told the roundhouse foreman he wanted another engine crew—one that would drink beer. The roundhouse foreman saw they were slightly barreled, so he did not answer them, but went to the phone and called the night yardmaster and asked him what to do. The yardmaster said to call another crew, for it was better to get another engine crew than to tie up the yard. The roundhouse foreman replied he could get another engineer but no other fireman was available. I fixed this up by telling him that I would drink if it was compulsory. So the switch foreman agreed to let me work, but my engineer went home. And thus we got a new hoghead, backed down to the switch-shanty and drank up this barrel of beer, went back and got another one, and then made up the morning locals and hot shots.—"Bozo" Texino.

The Sunny Side of the Track

TOO GOOD!

HE claimed to be one tallowpot
Who didn't kick or frown
When hogheads pulled the throttles out
And Johnson bars went down.
The needle's always on the spot—
You'd think the thing was nailed—
From coast to coast he'd kept 'gines hot,
And never once had failed.

He'd never scorched a crown sheet none,
Or twisted off a grate.
The eagle eyes with whom he'd worked
They called him "pal" and "mate."
He wouldn't ask a shack for coal;
Those lads were just a joke.
He banked his cash; in ten long years
He'd never once been broke.

He believed in work and shooting square;
Had never booked off sick
When icy winds were howling fierce
And snow flakes falling thick.
When call boys woke him in his bed
He wouldn't whine or bluff.
Rule G was one that he observed;
He'd heard 'twas dangerous stuff.

The M.M. who was listening
Just shook his grizzled head:
"I'm sorry, son, we can't use you;
Try some place else instead.
I've been a rail for thirty years;
Right early learned to cuss;
If you're as perfect as you say
You're too damn good for us!"

—Floyd T. Wood.

* * *

MULLIGAN STEW

AN old boomer cook who answered to the monicker of "Scotty" lived in a log cabin at Carrizozo, N. M. Scotty had a female fox terrier with a litter of small pups. The "rails" on the old E. P. & S. W. (now Southern Pacific), visited him quite often and played with the dogs. One day a train crew took up a collection and told Scotty to cook a mulligan stew for them. This he did. Placing the stew on the ground outside the cabin to cool, he awaited their return.

Suddenly he heard a commotion. The greedy little pups had discovered the stew. One fell in and was drowned. Scotty fished him out by the tail and buried the body. Soon the trainmen came trooping in, cleaned up the stew and said it was fine.

Several days later when someone asked Scotty how the dogs were coming along, he related the story. It was years before any of those men could live it down.—C. H. Bradley, 100 Columbia Ave., Albuquerque, N. M.

* * *

ONLY PRACTICING

A SWITCH foreman on the Southern Pacific put a student switchman on the leading car when shoving into a track that he had every reason to believe to be clear. They shoved in until the goat cleared the lead and the foreman stopped her. But about that time they got a "washout" from the student, then a "kick" sign, a highball, a broke-in-two, and every other signal known to a railroad fraternity!

"Hold everything!" the foreman roared to the pin puller and hogger, "until I find out what in hell's the matter."

He hurried back and demanded of the student: "What was wrong back there?"

"Why, nothing, cap," said the student.

"Then why were you giving all those signals if everything was O.K.?" persisted the foreman.

"Why, cap," came the innocent reply, "I was only practicing."—W. F. Knapke.

* * *

"SHOO FLY" BUILT AROUND ENGINE

AT the time of a revolution in Sonora, Mexico, some years ago, all of the American railroad men at Hermosillo resigned suddenly, not caring to get mixed up with Mexican politics. Thereupon the natives, who knew very little about railroading, undertook the responsibility of running trains out of Hermosillo.

A young hostler's helper named Felipe Garcia was promoted to the job of engineer. Garcia's knowledge of operating a locomotive was confined to opening and closing the throttle, manipulating the injectors, and playing around with the air. His first run was taking a hog out of the roundhouse and on and off the turntable, which he accomplished without a mishap. The next move was not so simple. While climbing out of the cab window, he caught one of his overall legs on the handle of the engine brake or "jam," setting the brakes.

H. T. Webster in N. Y. Herald Tribune © 1934.

The Thrill That Comes Once in a Lifetime

Garcia did not notice this, however. Later he was puzzled when, by opening the throttle, he failed to turn a wheel. The hog stood on the only track leading from the roundhouse to the main stem, thus blocking traffic. Garcia didn't know what to do; neither did any of the other natives.

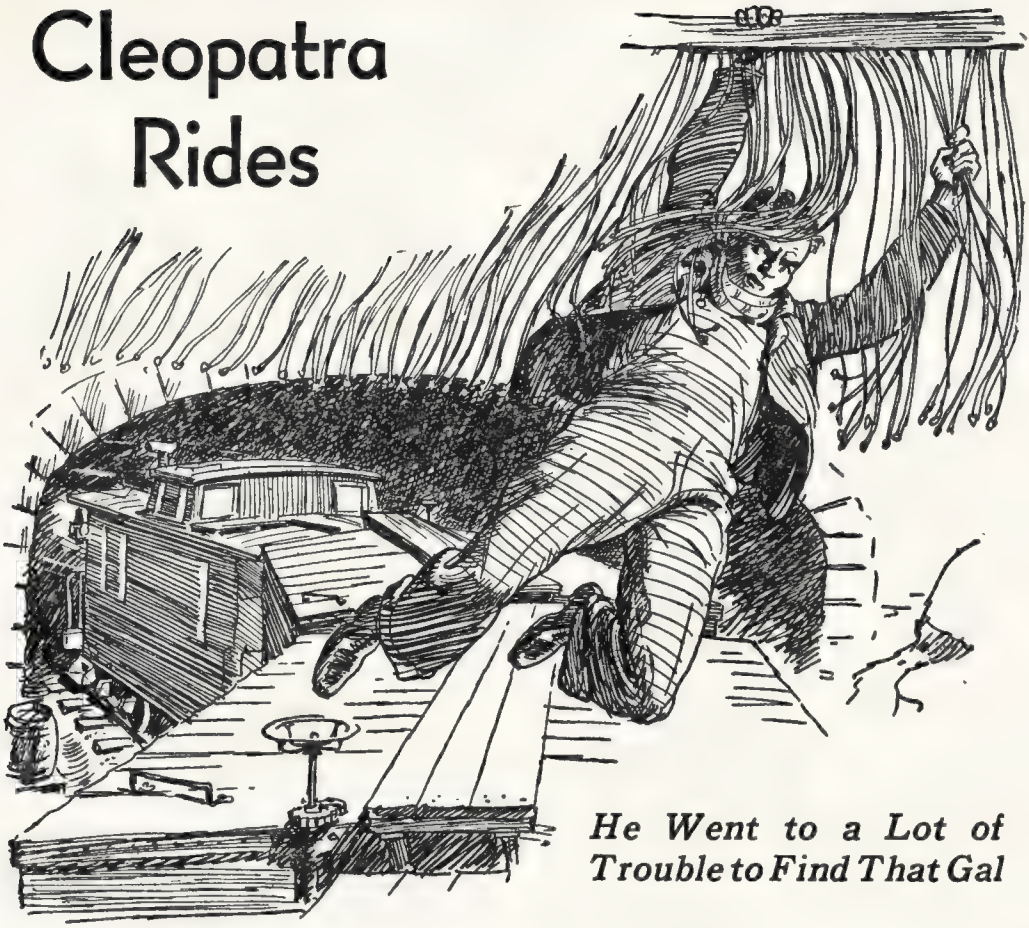
Finally, after heated argument and much gesticulation, another hog was coupled onto the one whose brakes had been set, and an attempt was made to drag her off the outgoing track by sheer force. But the second engine's drawhead broke, and the Mexicans again were at a loss what to do.

"Americanos put curse on her," Garcia wailed.

For the rest of the day no trains were operated out of Hermosillo, while the natives continued to jabber and gesticulate. At length a master mind conceived the idea of building a "shoo fly" (temporary sidetrack) around the stalled locomotive. This was done, and the operation of trains was resumed.

The offending hog was left to rust on the outgoing track until the end of the revolution, when the Americanos returned and released the brake.

Cleopatra Rides



He Went to a Lot of Trouble to Find That Gal

By ALEXANDER SCOTT

Ex-Fireman, N. & W.; Author of "Broken Rails," "The Hobo Rider," etc.

JIM RILEY, leaning against the window ledge of the little station, heard this message come over the wires:

Cleopatra on Number Seven. Get her off!

Jim was a boomer brakeman making his first regular run on the Mountain Division of the C. & P. He had done some brass-pounding (telegraphy) in his time and understood the Morse code. The local freight, on which he was head brakeman, was holed up on a siding to let the pay car special go by. Jim listened to the chattering sounder.

A few minutes passed and again he heard the dispatcher's office at Handley talking to Thurmond, a stop for all Mountain Division trains.

McKendrie reports Cleopatra on Seven. She was hanging on the blinds. Get her off!

"That dame is kicking up plenty of excitement," Jim muttered. "What the devil is she doing on the blinds, anyhow?"

More minutes passed. A mellow whistle note, like a distant horn of elf-land, sounded. Jim straightened up. That would be the pay car special coming down the main. He paused as another message sped over the wire; from Thurmond, this time:

Cleopatra not on Seven. Either fell off or met with foul play.

There was a moment of silence, then a request from the dispatcher's office, pregnant with tragedy:

Tell all section men to be on look-out for body.

Down the main line boomed the pay car special, a big engine and a single long yellow coach. Jim watched the lower arm on the signal tower switch from red to yellow as the station agent threw the switch to let the local freight out of the siding. He waved a highball to the hogger and climbed up the side of the first box car as the local rumbled past.

Jim was seething with indignation as he made his way back toward the middle of the train.

"Soon as I get in, I'm gonna quit this damn pike," he growled. "A woman falls off a passenger train and all they do is notify section men to look out for her body! Why don't they send out searching parties? To hell with such a system!"

Even as he grumbled to himself, No. 7, the westbound flyer, crashed past in green-and-gold splendor. Jim shook his fist at the red markers twinkling away in the gathering dusk.

A FEW minutes later the local freight paused briefly at Thurmond for water and coal. Jim looked his train over for hot boxes, there being nothing to unload or set off at this point, and clambered to the top again, about midway between engine and caboose. It was cooler and pleasanter riding there than in the cab.

"I'll just keep a watch out from here on," he decided. "That dame might be layin' anywhere 'side the track."

With this end in view he stood on the running board of the car, his tall figure balanced lithely against the lurch and sway, his gray eyes probing the shadows along the right-of-way.

"Soon be too dark to see anything," he thought as the local bounced around a curve and onto a short stretch where the rails ran almost level with a muddy flat that stretched on either hand. "Well, I've done all I—"

Something was lying beside the track just ahead, a huddled something that seemed to be moving! As the car on which the brakeman stood rocked by Jim caught the feeble flutter of a white hand. In a single bound he reached the ladder which led down the car side.

"It's her, sure as hell!" he swore excitedly.

With one foot over the roof edge, he paused. The local had passed the mud flat and was now running along a high embankment studded with jagged rocks. To leave the speeding train meant a fall—and a fall down that steep slope would cause injury or death.

Jim dashed to the other side of the car, and at that instant a long coal drag roared by on the westbound main. To drop off on that side would make destruction certain. And the girl back there might be dying for want of assistance!

Sweeping toward him was the dark mouth of a tunnel and dangling from the crosspiece spanning poles set firmly on either side of the right-of-way were the ropes of a "tell-tale"—those

knotted cords that hang some yards in advance of all tunnel mouths and obstructions and strike the unobservant trainman a smart blow of warning that danger is ahead for a standing man.

But Jim Riley did not crouch low as his train roared toward the tunnel. Instead, as he reached the tell-tale, he leaped high and grasped two of the ropes with muscular hands.

For an instant he hung swaying. Then came a spasmodic jerk, a horrible sense of falling. Jim crashed onto the roof of the following car, the broken ropes still clutched in his hands.

Over and over he rolled, groveling, clawing. To the edge of the swaying car, one leg over, one arm!

Checking his mad descent, the brakeman flopped back onto the car roof and lay panting as the local howled through the short tunnel. He was on his feet again the instant the car had cleared the burrow. There would be another tell-tale at this end.

Again he leaped, higher this time. His fingers gripped the cross beam, slipped, held. Beneath him the train crashed on. The red markers of the caboose rocketed around a curve and the scrambling figure of the brakeman was alone in the deepening darkness.

JIM reached the top of the bar with little difficulty, but the way his unstable support creaked made his blood run cold. Neither cross beam nor upright poles were ever intended to support 180 pounds of athletic young man. A fall to the rock-ballasted track would result in broken bones, at the very least.

Carefully as possible he inched along, reached a pole, wound his legs about it and felt it sway slowly sideways.

"If she breaks, she'll pitch me clean into the next county," he gasped as he slid frantically for the ground.

He made it, with skinned palms and lacerated knees; but without giving his injuries a second thought he headed up the track at a run.

"Not more than a quarter of a mile back," he calculated as he stumbled through the tunnel. "Sure hope she ain't passed out yet."

Jim passed the embankment, reached the flat. His breath caught sharply as he saw a figure weaving uncertainly toward him.

"It's her!" he exulted. "Maybe she ain't hurt bad."

She was a slim dark girl, with short brown curls in wild but charming disarray. Blood from a slight cut above one white temple trickled down a creamily tanned cheek. Her neatly tailored suit was torn and soiled with mud. She clung to the brakeman for an instant.

"You hurt much?" he demanded.

"Just—just a few bruises," she replied, still breathing with an effort. "I'll be all right in a minute. I was in the washroom when they stopped the train. I managed to climb out the window as they got under way again."

"They—who—what—" stuttered the amazed brakeman.

"Robbers!" explained the girl. "They captured the pay car and ran it up the old Dingus Mine spur. They're up there now. I was trying to go for help. Who are you?"

"Brakeman on the local freight. I saw you by the track and dropped off to see about you. Where's that spur?"

"Just around the curve. Why?"

"Come on!" Jim urged. "Let's look into this. It's fifteen miles to Handley and help. We'd never make it in time. Maybe we can do something by ourselves."

feel that if you had not been deliberately disobeying my written orders about carrying non-employees in way cars this would not have happened. Have you anything to say for yourself before I administer discipline?"

"You win," replied the conductor, a smile of contempt playing about his lips. "You're right—you're always right. That's the trouble with you. You're never wrong."

"Come, come," the official's voice was stern but not excited. "Stick to the question, please."

"I am sticking to it," Jess retorted. "The question ain't whether I'm guilty or not. I am, and I admit it. The question is whether or not I'm a human being. Well, I am too. Maybe you would have turned down a bum that night, but you and I are different."

Jess was hot-headed, like his brother, and he continued with increasing vehemence:

"The trouble is, you're nothing but a machine. You don't understand me. You don't understand nobody. You ain't human. That's why you ain't got a friend among your employees. There ain't a man on the C. & C.—"

Abruptly Jess broke off. His lips were quivering slightly, his face was red.

There was a ponderous, clumsy, suffocating moment of silence. For once the official tongue had failed to lash back; for once the official brain had been jumbled. Then Mr. Sheridan opened his mouth—hesitantly, for the first time.

"Harper," he said, "do you mean—are you speaking the truth?"

Jess grew panicky. Sam had been fired, and now his time had come. He sat still and stared at the brass hat. Then he licked his lips and looked down for a long moment at the pile of locomotive sheets on the desk. But not a word.

Mr. Sheridan was not dense. Though Jess Harper did not reply, his answer was clear, as easy to read as the locomotive specifications that lay in front of him.

Then Jess glanced up timidly. When he tells about it now, he says you could have floored him with a feather. Mr. Sheridan had never looked that way before. His face was changed so much you could hardly recognize it. The hard lines were gone; the features seemed troubled and soft and tired. Jess felt guilty and embarrassed, so he turned away.

Mr. Sheridan simply said:

"You may go now."

He didn't mention a thing about discipline, or the bum, or the question at hand. Jess was so glad to get out of the office that he forgot to notice Mr. Sheridan the second time or to tender a word of thanks.

WELL, it was some time before Jess told a soul about that. He was often tempted, but couldn't quite bring himself around to it. Why? He says he felt uncomfortable about it, and didn't want to be unfair to Mr. Sheridan.

Moreover, Jess Harper was still puzzled. Every day he had expected to find a letter of discipline in the mail, but none came. He decided to forget about it. He probably would never have opened his mouth on the subject if it hadn't been for the second time he got close to the man H. H. Sheridan. That second time came a few days later.

The G. M. and his troubles were farthest from the thoughts of Conductor Harper the night they called him to take No. 9 to Centerville. The ther-

mometer had dropped some twenty degrees during the day. In the afternoon the wind had shifted to the northeast, and by dusk it was snowing and blowing—the first snow of winter.

When Jess stamped into the yard office at 10.30 P.M. it was several inches deep, and had partly crippled the totally unprepared railroad.

Mr. Sheridan had gone home early that afternoon, but not because he thought he needed time off. He had given his housekeeper instructions to call him at 10 P.M. He knew the signs of a storm, and he considered it his duty to be on the job when that storm came.

This was not unusual in Mr. Sheridan, for he was really conscientious and a hard worker. But here again the boys took him wrong. They imagined his only reason for putting himself out was to check up on them. And here again you can't quite blame them.

Most of No. 9's comparatively light consist had come in from the connecting system early in the evening, so the train was almost ready at its scheduled departing time. As usual, however, "almost ready" meant any time within the next hour or so.

This being the case, Jess Harper hung around the yard office with his brakeman, Art Macdonald, while they waited for the frost-bitten east end switch crew to rustle up a few more loads and find a caboose. They amused themselves by haranguing Ike Kelsoe, the yardmaster.

"You better brush up on your English tonight," the Y. M. gloated. "Mr. Sheridan went home early today. That means he's liable to come poking his beak around here any time now."

Macdonald's face lengthened. "Fer Pete's sake, then," he urged, "get that train ready so we can highball outa town. We don't want him in our parlor tonight."

"Don't worry," chuckled Kelsoe. "You won't be accorded the great honor. Things will be tied so tight around here by morning that the pleasure will all be our'n."

"I hope so," was the brakeman's fervent reply. "I'd rather be snowbound up in the hills than put up with him." Then as an afterthought he asked: "Say, how does Frozen Face hold down that job, anyway? Everybody's against him, and he knows it."

The yardmaster arched his eyebrows. "How does any man hold down his job?"

Jess said nothing, though more than once it was on the tip of his tongue to mention a little of what he knew. In fact, he was just about to get off a deep one when the door opened and in walked Mr. Sheridan himself.

YOU never in all your life saw a night yard office change so suddenly. Feet went down from tables; voices were lowered or extinguished altogether; the call boy grabbed the phone and dialed a number; trainmen studiously scanned crew boards they knew by heart; and clerks almost broke the points off their pencils. Even the telegraph instruments seemed to chatter twice as fast as formerly.

The big brass hat noticed nobody in particular. He was too preoccupied with what he was doing. He got the information he wanted from Kelsoe, gave a few orders, heard several say, "Yes, Mr. Sheridan," and stalked out the door, apparently heading for the trouble down at the west end.

He did not see Jess Harper, although Jess was standing near the crew board, and Mr. Sheridan had examined it carefully while he was

man's neck. More yells and more crashings sounded from the car.

"Those guys are too busy tryin' to stand on their ears to figure out what's happened just yet," Jim reasoned. "Now where's Cleopatra?"

She was climbing up the cab steps that instant, cheeks flushed, curls flying in wild disorder. Her eyes were great pools of dark light, her red lips slightly parted to show white, even little teeth.

Jim whistled soundlessly. "Get up here and keep a watch out the window while I put in a fire," he directed.

"Where—where are the robbers?" panted the girl as the shovel clanged busily.

"Inside the car—I wired the doors shut," Jim flung over his shoulder. "But they'll be bustin' out soon as they get over being rattled. We gotta keep them outa the cab."

The girl slipped off the seatbox to make room for him. Their eyes met, the color in her soft cheeks deepened and her long lashes fluttered down. Jim drew a deep breath.

"I got just about half a notion my boomer days is drawin' to a close," he told himself. "Strikes me this C. & P. road is a darn good one to settle down on."

WHAM! Something had struck the cab side a resounding blow. Jim ducked, glanced back.

On the tank top he could make out a shadowy figure. As he looked a stream of reddish flame gushed toward him and another bullet zipped past his head.

"Get down low beside the seatbox here," Jim told the girl. "The cab walls are steel and he won't have any luck shootin' through them."

"What if he comes into the cab?"

The brakeman picked up a heavy monkey wrench and balanced it grimly.

"He'll wish he hadn't. Now watch me shake him up a bit."

On went the air brakes, a stiff application. Engine and car staggered convulsively. From the tank top came a yell.

Bullets began to stream past the cab. The bandits were on the front platform, leaning far out, trying to pot the "engineer." Jim kept his head inside and laughed derisively.

"Looks like I scared that guy off the tank," he told the girl, "and they'll never have any luck from where they are. This is just too easy!"

A moment later his face set in tense lines. "Guess I crowed too soon. The tank's empty, sure as you're a foot high."

The injector had kicked back, to the accompaniment of ominous rumblings. Jim closed it, carefully drew the handle back toward him, but with barren results. The injector refused to prime!

He glanced anxiously at the water glass, tried the gage cocks. Only a gush of dry steam rewarded his efforts with the second and third cocks; the lowest gave forth a sputtering trickle.

Jim put in a fire, at the risk of a bullet from the tank top. The high coal gates protected him, however, until the bandit there took the chance of standing again. Then a slug seared his cheek, another knocked a chip from the shovel handle.

Quickly he leaped over to the seatbox, jiggled throttle and bar an instant, slammed on the air.

The big engine acted like a hen on a hot skillet; the gunfire from the tank top abruptly ceased. Jim fished a note book from his pocket, found a pencil stub and began to write. His companion, looking over his shoulder, read the scrawled words:

Have sheriff and railroad bulls waiting for us when we hit Handley.

"What are you going to do with that?" she questioned.

"Watch," he said.

Jim wrapped the message around a grease plug wrench, bound it securely with a twist of waste.

The twinkling light of a tiny wayside station leaped into view—McKendrie, four miles west of Handley. Jim leaned out of the cab window, heedless of the bullets that stormed past. He poised the wrench, hurled it at the lighted window. He saw the pane dissolve in ruin as the missile reached its mark.

"Sure hope I didn't hit the telegraph operator on the head," he told the girl anxiously.

CRASH! A bullet drilled against the boilerhead scant inches from the brakeman's face. He crouched lower, glanced back.

A gunman made of sterner stuff than the first one had climbed the tank and worked forward onto the coal. Jim could catch the glint of his eyes back of the gun barrel. Another bullet ripped through the brakeman's sleeve, for he could not now crouch low enough to find shelter behind the cab back.

Jim seized the monkey wrench, half turned, then whirled back again and launched a terrific blow at the water gage glass. The heavy glass shattered slightly, the packing back of it jarred loose; little jets of steam spurted from around it.

He struck again. There was a hissing roar and the cab was filled with billowing white clouds.

Jim drew the girl down low beside the seatbox, crouched as far toward the cab side as possible and peered ahead for the first lights of Handley. The bandit on the tank would be forced to shoot blindly now.

The 178's boiler was grumbling and roaring, her safety valve was howling a mad song that drowned the crash of her spinning drivers.

Jim tensed for the explosion he felt to be inevitable. Death was thundering at him from the belly of the burned engine and spitting at him from the tank top. He set his teeth and widened on the throttle as the glow of Handley yards sprawled through the night.

Screaming, crashing, booming, the pay car special tore over the switches, steam billowing from her cab, the red flashes of guns luridly lighting her tank. Jim Riley crouched ready, the girl clinging to him.

Handley station loomed, its platform black with men. Jim Riley gaged the distance, slammed the throttle shut and "wiped the clock."

The 178 leaped, bucked, careened; but she didn't turn over or blow up. Riley, shielding the girl in his arms, was hurled forward. His head crashed against the reverse lever and he went limp.

He did not see the railroad bulls and deputy sheriffs swarming onto engine and pay car with drawn guns. He was only dimly aware of slender, rounded arms holding him close, of a girl's soft breast pillowing his throbbing head.

"GOT 'em every one!" Division Superintendent Harley exulted a little later, "and the division payroll saved, thanks to you, Riley. We sure won't forget you for this night's work. General Manager Dunn just wired that he wants you to come up to Huntington and have a talk with him."

Harley turned to the dark-haired

young woman who stood beside Jim Riley's chair, one arm protectingly about the wounded shoulders. "He wants to see you, too, Helen."

Jim looked up wonderingly. "Helen?" he questioned.

"Why, yes," said the girl, "Helen is my name, I am the paymaster's secretary."

"The paymaster's secretary!" gurgled Riley. "You wasn't on the flyer's blinds? You ain't Cleopatra?"

Helen looked at the brakeman in astonishment and with a little of apprehension.

"You poor dear," she soothed. "You just lean back against me and rest. You'll be better soon!"

But Superintendent Harley let out a thunderous laugh. "So you heard that message go over the wire?" he whooped. "You thought Miss Kane was Cleopatra when you saw her 'longside the track? Oh, this is rich! Haw! haw! haw!" He doubled up with mirth.

"Cleopatra came back," he added, wiping his streaming eyes. "She always does. She caught the eastbound local at Thurmond while everybody was hunting for her on Number Seven. She's here right now. Here, Cleo! Here, Cleo!" he shouted.

Into the room marched Cleopatra, tail arched over her back, eyes wide and inquiring. Behind her, tails arched over their respective backs, eyes wide and inquiring, marched five kittens.

"*Merowr?*" said Cleopatra.

International Engine Picture Club

READERS who collect, buy, sell, exchange, or make pictures of locomotives, trains, cars, etc., are listed here as members of the International Engine Picture Club. There are no fees, no dues. Names are published in good faith, without guarantee.

A membership button is given FREE to those who send in a "Reader's Choice" coupon (page 141) and self-addressed stamped envelope. (If you live in Canada or any foreign land, enclose a loose 3c stamp from your own country instead of the envelope.) Address Engine Picture Editor, "Railroad Stories," 280 Broadway, New York City.

NEWS for engine picture collectors: a New York City branch of the Railway & Locomotive Historical Society, Inc., has been organized. The aim of the society is to collect, preserve and exhibit historical railroad relics. It has a large museum in the Baker Library of the Harvard Business School, Boston, Mass., and annually publishes two or more bulletins containing unusual railroad history, etc. Growing interest in the organization is responsible for the New York branch, which plans to establish a museum there as soon as possible, and hopes to encourage other branches. T. T. Taber is chairman. All who are interested should write to the Railway & Locomotive Historical Society, New York Chapter, P. O. Box 434, Madison Square Station, New York, N. Y. Donations of historical material, such as old photos, tickets, documents, timetables, etc., will be appreciated.

* * *

B. AHMAN, JR., 3313 Westerwald Ave., Baltimore, Md., has 120 size Md&Pa, PRR, WM; wants AlaCent, Amador Cent, NS, Blue Ridge, Mansfield, and all Md, Va, NC, SC, and Ga roads.

L. ALLEN, 209 Oglesby St., Salem, Ill., has 2000 employees' timetables of C&EI, Alton, Frisco, Cotton Belt, etc., to trade for other timetables, especially short lines or abandoned roads. Wants CH&D, KCM&O, OU, K&S, DeK&W, AL&G, CA&S, NL&G, MR&BT, C&EI prior to 1925.

W. ALLISON, Maxwell, Ala., wants Jan., Mar., April, 1934 "Railroad Stories"; will send builder's photo of "James Archbald."

A. ANDERSON, 120 Fern Ave., Lyndhurst, N. J. Send 3c stamp for list.

A. ARNOLD, secretary of The Railway Circle, Hillside Rd., Fish Hoek, Cape Town, South Africa, will exchange photos.

T. ARNOLD, 805 Gorsuch Ave., Baltimore, Md., has B&O, CN, CP, Canton, C&O, CB, Big Four, E&N, M&P, P&BR, PRR, RF&P, trade or sell; also wants employees' timetables.

G. AREND, 13 High St., Franklin, Ohio, has many postcard at 12 for $1, and 5 x 7 at 20c each of short, abandoned, and trunk lines. Buys good negatives; send 10c for sample and list. Has many annual passes, mostly short lines, to trade for good locomotive negatives.

L. BARKER, St. Paul, Va., starting collection.

J. BELL, 1111 S. Aurora St., Stockton, Calif., has 6 Santa Fe magazines, 2 "The Railroad Telegrapher," 1 "Locomotive Engineers Journal," "The Railroad Trainman," 1 "Railroad and Current Mechanics," Nov., 1913, to trade

for 1929-1931 "Railroad Man's Magazine" or for greatest number of modern steam power, any large road.

B. BISHOP, 14111 Sherman Way, Van Nuys, Calif., has Dec., 1931, Official Guide and many western photos trade for pictures, timecards, train orders (esp. WP), etc.

L. BOOTH, Vinton, Va., will pay 10c each for 116 size negatives of N&W, B&O, L&M, Md&Pa, Virginian; send list.

L. BRODBECK, Pere Marquette Ry., Woodbury, Mich., has copies of "Detective Fiction Weekly" to trade for engine pictures.

H. CHAPMAN, Waterbury, Vt., wants Canada Atlantic employees' timetable, 1904 or previous, also any date Central New England employees' timetables, also photo of CNE, 160 (2-8-0). Send 3c stamp for list.

A. CHASE, 219 Cary Hall (East), Purdue University, W. Lafayette, Ind., wants employees' timetables (1929-1931), main line, of: CB&Q, SP, NP, GN, Milwaukee, C&NW, D&RGW, WP, MoP, Erie, MC, SP&S, UP; buys and trades. Write what you offer and what you want.

W. CLIFFORD, 220 Miami St., Buffalo, N. Y., trades 2½ x 4¼ photos taken in Buffalo for those snapped in other cities.

G. COURTENAY, 4512½ Normandie Ave., Los Angeles, Calif., wants single weight glossy of CPR, 8000 and CNR 5700.

P. CROOKE, 127 Walnut St., Roselle Park, N. J., has radio parts and 11 issues "Popular Mechanics" to trade for back issues of "Railroad Stories" or photos; write.

A. CROXTON, secretary of The Railway Circle, P. O. Box 602, Bulawayo, S. Rhodesia, Africa, will exchange photos.

F. CSORBA, 9111 Cumberland Ave., Cleveland, O., has public timetables of 30 U. S. and Canadian roads at 10c each or all for $1.

G. DANALD, 915 Maple Ave., S. Plainfield, N. J., has nearly complete set LV photos, 2½ x 4¼, at 5c each.

DARMER PHOTO LAB., Dept. 8, Des Moines, Iowa, makes 5 x 7 enlargements from Kodak negatives at 10c each or 3 for 25c.

A. DAVIS, Box B, Jeffersonville, O., has postcard size DT&I, B&O, NYC, PRR, 2 for 25c or 10 for $1. Send 10c for sample photo and list.

D. DAVIS, Morehead, Ky., has 116 size of Morehead & N. Fork, C&O, Flemingsburg & Northern, Brookville & Ohio River; sell or trade; send 10c for list and sample.

F. ELLIOTT, 1807 N. Camac St., Phila., Pa., wants good photo of old W. Jersey & Seashore steam dummy working out of Tennessee Ave. Station, Atlantic City; also Reading saddle-tank, old 1200 series.

B. FITZSIMMONS, 209 N. Washington St., Gettysburg, Pa., specializes in D&H.

N. FORD has Philadelphia street car transfers to trade for railroad pictures.

C. FREED, 3540 Sunnyside Ave., E. Falls, Pa., has 2 Reading employees' timetables, 1933; wants photos.

B. FULTZ, 2356 N. 48 St., Milwaukee, Wis.

D. FURLER, 65 Glen Rock Ave., Glen Rock, N. J., has many 2½ x 4¼ at 10c each, 3 for 25c; 3¼ x 5½, 10c each; send 3c stamp for list.

J. FYFE, 1330 Ashland Ave., Wilmette, Ill., collects public and employees' timetables.

H. GABRIEL, 4 Burton St., Walton, N. Y., wants NYO&W; has many narrow gage and small lines; buys, sells or exchanges.

N. GARRISON, 87 Penn St., Bridgeton, N. J., wants July, 1932, and Jan., 1933, "Railroad Stories."

W. GIBSON, 914 Clay St., Topeka, Kan., wants photos of KCNW and UP 2811 and 1800 classes.

J. GOTCH, 13137 Indiana, Detroit, Mich., buys negatives, all kinds, sizes; collects photos all roads.

P. GOTTSCHALL, 934 Rose St., Reading, Pa., selling out complete collection; send self-addressed envelope for list.

J. GRESSITT, 2449 Marcy Ave., Evanston, Ill., has May, 1933, Jan., 1934, "Popular Aviation"; Dec., Nov., 1933, Oct., 1932, "Popular Mechanics," and Chilean Battleship in Panama Canal; wants LV 4-10-0, Beyer-Garrat 4-8-2-2-8-4, any 4-8-0, 4-4-4.

H. GRIBBIN, 135 Providence Ave., S. Portland, Me., has employees' timetables for practically all New England roads, large and small; MeC handbook of stations; 1929 Official Guide; 1932 PRR calendar. Trade for engine photos only. Has information about old MeC Mallets.

F. HARMER, 3848 Jaynes St., Omaha, Neb., wants photos of UP old-timers: Classes 700, 600, 1601-1619, 1620, 1900.

B. HASTIE, 4546 49 St., Woodside Section, L. I. C., N. Y., has back issues of "Railway Age" for 50c each; also many old railway reports: Columbus, Ohio & Indiana Central; NYWest Shore & Buffalo, 1882; Phila., Wilmington & Baltimore, 1855 and 1857; "The Railway Journal," 1832-1833, 1834; "Poor's Manual of Railroads," 1902, ($3.50); Northern Pacific, 1871; Union Pacific, 1875. All reports contain information about equipment, condition of road, etc.

J. HAGERTY, Box 2331, Boston, Mass., wants postcards only of B&M engines, all types; exchange or buy; write for list, send yours.

E. HEATH, Box 15, Barre, Vt., has considerable data on all roads, especially Barre & Chelsea, B&M, CV, M&WR, St. Johnsbury & Lake Champlain. Will answer any questions about these roads if you enclose self-addressed stamped envelope.

H. HIGGINS, 3808 S. 26 St., Omaha, Neb., has CB&Q No. 1744 and new Diesel switcher No. 9121 (3¼ x 4½), both for 25c.

F. HOFFMAN, 573 Lincoln Ave., Pottstown, Pa., has photos of Reading, PRR, CRRofNJ, LV; trade; wants Reading series 100, 300, 400, 800, 900, 1200, 1400, 1600, 1700-1900, 616; wants April, 1932, issue "Railroad Stories."

J. HULSE, JR., 2504 Kenway, Des Moines, Ia., wants A&WP, M&StL.

K. JOHNSON, Auburn, Calif.

W. KOLBE, 9840 S. Morgan St., Chicago, Ill., has following back issues "Railroad Stories" for sale: July, Sept.-Dec., 1932; May, July-Dec., 1933; Jan., Feb., 1934.

LOCOMOTIVE PHOTOGRAPH CO., Box 6354, West Market St. Station, Philadelphia, Pa., offers set of eight 3 x 8-inch photos of Indian locomotives for $1: North Western of India 2-6-6-2; Bikaner State No. 21, 2-8-2; No. 58, 4-6-2; Gondal Ry., 4-6-2; Jodhpur State, No. 085, 2-8-2; Morvi Ry. No. 19, 4-6-0; Madras & S. Mahratta No. 1000, 2-8-2; South Indian No. 875, 4-6-0. Send 10c (no stamps) for catalog of others.

T. MASON, 957 E. 49 St., Brooklyn, N. Y., is holding 50 transfers from person in Los Angeles who forgot to enclose name and address.

R. McCOY, 3681 Broadway, N. Y. City, will trade timetables of different roads for pictures or circulars.

F. McLEOD, 1068 Fifth St., Oakmont, Pa., has PRR 1934 calendar, $1; 2½ x 4¼ B&LE 2-10-4 type, 12c; PRR engines and train scenes. Buys good negatives of CNR 2-10-4.

R. MEHLENBECK, 128 W. Arcadia Ave., Peoria, Ill., wants ICE, P&PT, RIS, K&UT, CO&P, C&IT, NTTCo, Tex.Elect, E.Tex.Elect.—all interurbans, buy or trade.

A. MERRILEES, 125 Balsam Ave. S., Hamilton, Ont., Canada, collects TH&B, CPR, MC. Will buy photo of PRR engine at Pan American Exposition, Buffalo, 1904. Has every type on TH&B, much history, etc.

O. MERRY, 65 Crystal Ave., New London, Conn., starting; wants help.

A. MILLER, 3448 33 Ave., S., Minneapolis, Minn., wants old and new photos of C&NW, CStPM&O, Wis.Cent., Soo, RI, CB&Q, CMStP&P—rosters, reports, histories, passes, tickets, etc.

V. MOGEL, 347 Chestnut St., W. Reading, Pa., has Reading timetables at 10c each, train orders to trade or sell.

R. MORRIS, 6653 Colonial Rd., Brooklyn, N. Y., wants certain NYC calendar pictures, original size, A-1 condition. Has several employees' timetables to exchange, or will pay cash for same; write, giving all details before sending.

J. MURRAY, Box 267, Church St., Pictou, N. S., Canada, wants CN locos, trains; write.

L. ORSBERN, 2403 E. Grand Ave., Des Moines, Ia., is selling all postcard photos at 3c each plus postage; 5 x 7, 10c each, 3 for 25c plus postage; send 10c for list and sample print. Wants O gage track and cars, buy or trade for photos.

C. PERKINS, 914 S. McClure St., Marion, Ind., wants famous old NYC&H 999, also GN engines.

H. PETERSON, Ponca, Neb., has following postcards at 10c each or trade for other postcards: CStPM&O 325, 144; Burlington 388 (Inspection); RCBH&W 7 (geared).

K. PRATT, Bloomfield Station, P.E.I., Canada, wants Official Guide, 1930.

RAILWAY PICTURE SERVICE now has new address: Box 25, Station B, Columbus, O.

C. RATZBURG, Gen. Del., Monte Rio, Calif., has 2¼ x 3¼ of San Francisco street cars at 5c each or trade for O gage car trucks with wheels and axles.

L. REISE, 2212 Forest Ave., Des Moines, Ia., makes 5 x 7 enlargements for 3 for 25c; make copy negatives at 25c each.

J. RICHARDS, 501 Elm Ave., Swarthmore, Pa., trades, buys and sells timetables, common or rare, especially C&O, Santa Fe, Reading, pref. older than 1929. No employees' timecards; send list and rates.

G. RICHARDSON, 8 Summit St., East Orange, N. J., wants to correspond with members in foreign countries.

W. RICKER, 18 Prescott St., Winthrop, Mass., wants "Railroad Stories" for April, 1933.

P. RIDNER, 101 Second St., South Orange, N. J., has newspaper clippings and pictures, including history of Rockaway Valley RR,, for 75c or trade for photos.

O. RISSELL, Pender, Neb., has 116 size of first loco in Black Hills, CB&Q No. 4103, and others at 10c each. 120 size CB&Q No. 4200, 6170 at 7c each.

A. RICH, 1533 Foulkrod St., Phila., Pa., has many good engine pictures. Send stamp for list.

RITTER PHOTO SERVICE, 757 Sedan St., Cincinnati, O., has over 200 short lines, mostly 4-4-0 postcard size; send stamp for list; 15 for $1. Wants Big Four, LE&W, NWP 4-4-0's.

W. RUTH, 5430 Ferdinand St., Chicago, Ill., has C&NW, CB&Q, CGW, IC, CRI&P, CMStP&P, etc., at 5c each or 6 for 25c; send stamp for list and sample.

A. SAUKAS, 1825 Alpine Ave., Grand Rapids, Mich., has 9 last year's copies "Argosy" to trade for back issues "Railroad Stories."

R. SELLON, 1014 N. Palm Ave., Burbank, Calif., has 2½ x 4¼ of SP, UP, Santa Fe, CPR, CNR, to trade for modern power on all roads, esp. Santa Fe. Will buy good photos of T&P, 600 and 900 series, Santa Fe 3450 and 3751 series.

F. SEYMOUR, 1011 Moores River Drive, Lansing, Mich., has postcard of Mich. roads, also many others, 10c each plus postage or $1 per dozen postpaid; send 3c stamp for list, no exchange; buys Clover Leaf negatives.

S. SOKOLOV, 1537 E. 6 St., Bethlehem, Pa., wants photos or negatives of CMStP&P, Soo, NYC&St L, HV, C&O, LV, M&RR. Send list before sending any photos or negatives.

F. STEPHEN, 75 Waterloo St., Moncton, N. B., Canada, has Canadian Government books of rules and rates of pay for certain employees; best offer.

W. STONEHAM, 434 W. 91 Place, Los Angeles, Calif., has copy of Vol. 1 of "The Science of Railways," by Kirkman, to trade for scale drawings of SP or UP 4-8-2. Will buy copy of "Locomotive Cyclopedia."

T. SUITO, 1525 Addison St., Berkeley, Calif., collects street car transfers; will exchange.

R. SWAIN, 4217 N. Keeler Ave., Chicago, Ill., will buy photos of Columbia & Palouse, Seattle Lake Shore & Eastern, S&P, Washington Cent., Spokane & Nor., Spokane Int., North Coast RR, Idaho, Wash. & Mont.

W. SWEET, 721 19 St. N. W., Washington, D. C., has 130 photos and negatives (3½ x 4½) of Eastern and Southern roads for exchange, prefers old-timers and small roads; has many clippings dating back to 1880, and official railway list, 1886.

E. THOMPSON, 4460 N. Springfield Ave., Chicago, Ill., has No. 451 (4-4-0) of Palatine, Lake Zurich, & Wauconda, aband. 1924; 2 different views 50c, or 35c each, or trade for electric equipment in Midwest.

M. TOMME, Raymondville, Tex., has 2 "Baldwin Locomotives" and 3 "Locomotive Engineers Journal" to trade for good 116 photos or negatives. Has 120 size photos at 5c, 166 at 7c, postcard at 10c, 4 x 6 at 25c; wants to trade or buy postcard of D&H Nos. 1400-1403; wants negatives or photos of engines in gravel pit at Louisville, Ark.; C&S and D&RGW narrow gage, and Ark-Tex Lumber Co.

H. VAN HORN, Palisade, Minn., has many small roads for 5c each or trade for 4-4-2, 4-4-0, 2-6-2 of any road; has many employees' timecards of roads running into Minneapolis.

F. VOORHEES, Miller Place, Long Island, N. Y., has timetables of all roads and LI engines to trade for "Railroad Stories" and other engine photos.

E. WEBB, 1705 Woodlawn Ave., Logansport, Ind., has 2½ x 4¼ of many roads at 6c each; 20 for $1; send 3c stamp for list or 10c for two samples and list; has many rosters for sale; will give LV 2014 with each order of 20c or more.

E. WILLIAMSON, 13010 Kercheval Apts., Detroit, Mich., wants front-side views of Santa Fe 3936, 5000; GN 2552; T&P 666; IC 7000; C&O 493, 1258 and train views.

W. WILTSIE, JR., Box 22, New Providence, N. J., wants 1930 issues of "Railroad Man's" for 20c each. Wants to hear from some one who will make copies of photos cheap; has DL&W engines, employees' magazines to trade or sell; also blue prints of B&A 4-6-4 and 2-8-4 to trade or sell for best offer. Will buy 116 size negatives of Soo, Erie, LV at 10c each; has many photos for sale at 3c each; send 10c for 3 and list.

R. WOLF, 6131 Locust, Kansas City, Mo., has many photos on following at 7c each: PRR, KCT, Santa Fe, RI, M-K-T, MoP, KCCC&StJ, or trade for NYC 0-6-0, PRR 0-4-0, 0-6-0; RI, CB&Q, and other roads entering KC, Chicago, Cincinnati and NYCity.

K. WURTZBACHER, 989 Link Ave., Springfield, O., will send 5 size 116 prints of Big Four, Wab., DT&I to any one sending good negative, steam or electric, of any American road.

C. YINGLING, Box 12, Masten, Pa., no longer trades engine photos.

W. ZE ZULA, 2116 Griffin Ave., Los Angeles, Calif., has PE, UP, SP, SF for sale or trade.

F. ZIRBEL, 322 7 St., Lewiston, Idaho, has 2½ x 4¼ of CPR, CNR, CMStP&P, D&RG, NP, UP, SP, MoP; wants NP 447, 121, 9, 310—all old-timers; send 10c stamp for list and sample.

* * *

Abandonments

Carolina & Northeastern, Gumberry to Jackson, N. C., 8 miles. Louisville & Nashville, Redding to Readers, Ala., 5 miles. Pere Marquette, Elmdale to Freeport, Mich., 6 miles. Santa Fe, Elsinore to Temecula, Calif., 17 miles; Medicine Lodge to Gerlane, Kan., 8 miles.

* * *

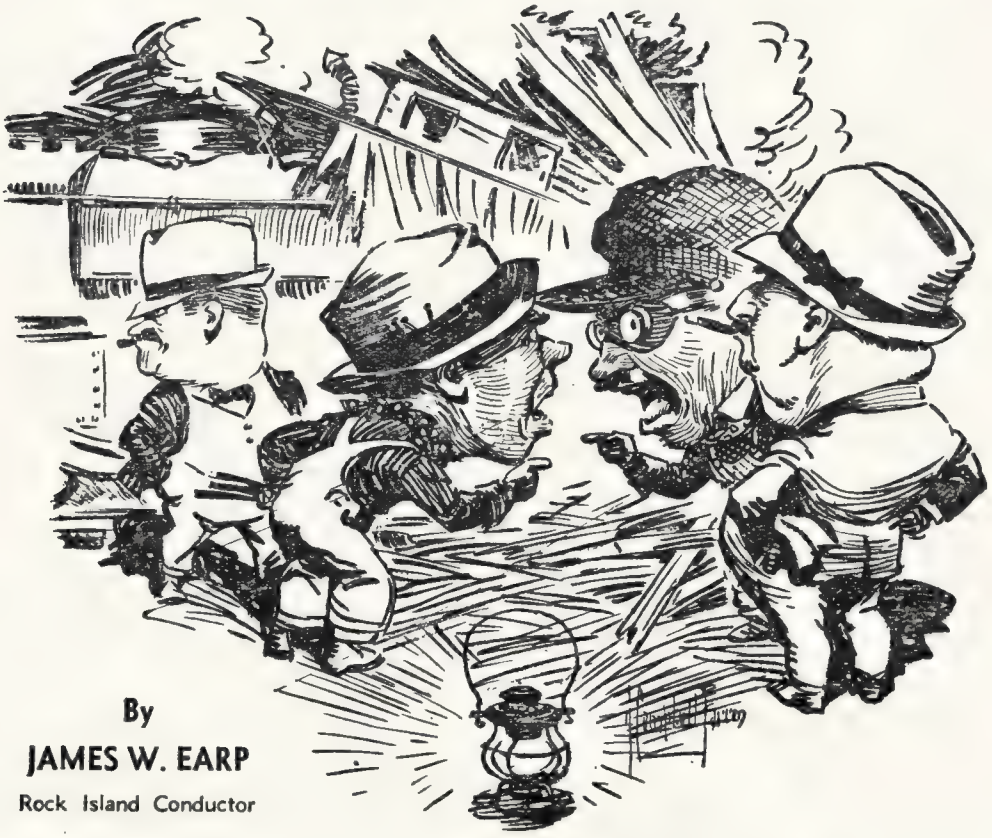
Construction

Northern Pacific, Odair, Wash., to Grand Coulee dam, 29 miles.

"CHANCES," By E. S. DELLINGER

A Swift-Moving Novelette of Hazard on the High Iron, Coming in Our July Issue, Out June First

Circumstantial Evidence



By
JAMES W. EARP
Rock Island Conductor

"You Didn't Have No Markers Lit!" the Engineer Yells; "And You Had No Headlight!" I Come Back at Him

"THAT'S not all true," said the old conductor as he pointed out a "Safety First" placard on the walls of the railroad reading room. "Carelessness may be the big sin, but all the wrecks and loss of lives and jobs are not caused by it. Ignorance is worse than carelessness. I've been canned off lots of jobs, but never for being careless. The only time I was fired for it, I was innocent."

"Hardly seems right they should fire you," I observed.

"Circumstantial evidence," replied the old conductor. "The thing that has hung more men than all the mobs in the world. However, it was a queer layout. You couldn't blame the officials."

He paused; I waited. Seeing that I wanted to hear it, he told me the story:

IT'S been all of twenty years ago, when I was a boomer. Jobs were easy to get and just as easy to lose. The last thing I ever thought of was

camping on a regular one. Then suddenly I meet up with the one and only girl and decide it's time to settle down.

So I do. But I don't get married. The reason is that the girl won't listen to it. I've got to stay on the job and save money, she tells me. Anyway, a year isn't long to wait. If I can hold out that long, maybe I can cure myself of itching feet. And she's not doing any looking for jobs after she's married.

I agree. It's all I can do. Three months later I'm sitting on a regular car with a conductor called " Birdlegs " Davis. My partner's name is Foley. Being the oldest man, he holds down the post of parlor brakeman on the caboose while I ride the engine. For six months I'm on with Birdlegs and making good. Then all at once business begins to pick up. One night they call me for a stock train. When I show up at the yard office, Birdlegs is waiting for me.

" You take the rear end out of here," he orders. " Our head man is a student and doesn't know any more than the law allows. Foley is following us on another stock train. He's conductor, and he's got two students to keep him busy."

I do as I'm told. I light the lamps and fill the markers and get things in shape for the trip. With this work done, I leave the caboose and go after some ice for the water cooler. By the time I'm back, Birdlegs is on the caboose and ready to leave town. With him is the trainmaster and super.

" You're first 884 out of here," says the T. M. to me. " The second section will be right on your heels. Keep your eyes peeled for them and don't get hit. This stock is the first shipment of a thousands cars and we want to give it a good run."

We highball out of town with 26 cars and a caboose. When we hit straight track and start running fast an air hose blows up. Me and Birdlegs are thrown to the floor.

" Beat it!" bellows Birdlegs. " Foley ought to be close behind us."

HE didn't need to tell me. Already I was on my way back along the track with my load of fusees, torpedoes, red and white lanterns. Then I hear an engine whistling to the rear. So I keep going as fast as I can. At the same time I'm getting a red fusee ready. I'm maybe five or six poles back of the caboose when I feel the rails begin to rumble. Still no headlight in sight. Right now I guess that the rear section's engine is running without one. Likely to be on me at any moment.

That's when I decide to crack the fusee. Only to my surprise the fusee doesn't light. Later on I'm to know why. But there in the darkness with only an oil lantern and a train coming towards me I don't have any time to do any examination. All I know is that the whistles of the rear section are getting closer and closer and I can't get my fusee lighted.

Three different fusees I try, and all are like the first. By this time I'm getting frantic. I had my red lantern, but a red lantern is a poor thing to depend on to stop a fast moving train when you're not back very far from your own train. About then I look back to see how far I am from my own caboose and the shock almost knocks me down.

My caboose has completely disappeared. Yes, sir, just faded away in the darkness. As far up the track as I can see there's not a sight of a marker or a light or anything to tell me where

it is. All I can figure out is that Birdlegs has put on a new air hose and left me to come in on the following section. Somehow, that didn't sound reasonabe. Birdlegs is one of those conductors that likes to have his flagman all the time.

While I'm wondering about my caboose, I'm not resting. I'm stripping the tops off fusees and trying to light them. And every time I fail I hear the rumble of the rails getting stronger, and the whistles sounding closer.

When my last fusee fails I start swinging my red light, hoping that the engineer on the rear section will see it in time to stop and pick me up. At the same time I'm giving thanks my own train has gone off and left me. Otherwise we stood a good chance to get the old hack tore up.

And the hoghead does see me just about the time he's right on top of me. He answers my red light and shoots the air to the old mill at the same time. But he's too late. I hold my breath and my hat as the big engine and string of stock cars go flashing by. As I had guessed, he was running without a headlight. Fireworks is shooting from every wheel on that train when I hear a crashing of cars together and the rear section stops like it's hit a stone wall.

No need to tell me what has happened. The first section—my section—had been hit. I leg it over to the engine as fast as I can go. There I find it with my caboose cupola on its smokestack and the rest of the crummy on top of a stock car two cars ahead of it. Two stock cars are jack-knifed and the cattle are trying to stampede out of a place where there isn't any stampeding, and the fireman and engineer and brakeman on the rear section are trying to figure out what happened.

"You didn't have no markers lit," the engineer yells at me when I come up. "You didn't have no lights."

"And you had no headlight!" I come back at him. "My markers must have gone out when the air hose blew up. If you'd had a headlight you'd have seen our caboose in time to stop."

WE'RE still arguing when Birdlegs shows up on the scene. Before he can say a word the trainmaster and super arrive, peeved and excited and looking for someone to take a fall out of. Being the flagman on the first section, I naturally am picked as the best victim. I try to explain, but I have to admit it's poor stuff. The trainmaster stops me in the middle of my telling him about the fusees.

"Let me see those fusees," he says.

Well, back we go to get the fusees I'd left. Now that I had time to take a look at them I could see why they wouldn't light. They were so greasy and oil-soaked that the priming was gone from them, or else too wet to scratch. I'm too surprised to say anything. So is Birdlegs. He just can't understand it. Foley has the reputation of being pretty careful with his supplies.

But that isn't all of that. They examine my markers and find them bone dry. Not a drop of oil in either of them. The fact that Foley is the regular hind man doesn't interest them at all. I'm in charge and supposed to know that all my stuff is in good working order. Birdlegs, as conductor, is supposed to know that I know and see that I do have things right.

"Carelessness," opines the trainmaster. And the super echoes, "Carelessness."

Of course we had a regular investigation. After it is over me and Bird-

legs find ourselves ready to look for another job. I go down to break the news to the one and only and listen to what she has to say. I figure I'm blowed up there.

"Go get another job," she says. "And when you've been there a year, write me and I'll come." Then she smiles. "On second thought, that won't do. I think I'll marry you now and go with you. Maybe I can keep you on the next job you get."

Well, we're married. I wonder if the super would be kind enough to give me a pass for the wife and self for old times sake and go up to the office to see. To my surprise he says yes. Me and the wife leave on the next train. A week later I'm roosting on a new job. Two years from then I'm promoted conductor. The wife thinks we ought to celebrate by having a second honeymoon. So we do.

It's on the honeymoon that I run across Foley. And he is glad to see me and know that I'm doing well. Birdlegs, so he tells me, is still conductor and first out for a passenger run.

"How come?" I ask.

"They learned the truth about that wreck," Foley answers. "So they put Birdlegs back to work. They'd have put you back if they could have located you. I suppose you've often wondered what happened that night?"

"I sure have," I said. "Birdlegs said that he blew out the desk light when he left the caboose, but I still don't understand how the markers could be dry. I know they had oil in them when I lighted them."

"They did," Foley admitted. "But you remember that night that I had two students as brakemen. I also had an old coach as a caboose. When the rear student goes down to take charge, he finds he has no oil for his lamps or markers and that the fusees are all greasy and oil-soaked.

"Being a little green and not wanting to ask me, he goes out to borrow some. Your caboose is handy and open and nobody home. He helps himself to your fusees and leaves his. Then he starts filling his markers.

"Before he gets under way Birdlegs shows up. Not wanting to get caught, the kid sneaks away. Birdlegs goes in the caboose. The kid knows you're about to leave town and knows you've got plenty of oil in the caboose, so he just takes your markers down and puts his up. In spite of the fact they're almost dry, he lights them."

"But how did you find out all this?" I ask.

"The boy confessed afterwards," Foley replied.

I could have gone back, but I didn't. I liked it here. The officials are fine to work for. But don't talk to me about carelessness being the big sin. I'll take my chances any day with a careless man rather than an ignorant one.

MOTORISTS PAYING FOR RAILROAD BRIDGE

EUROPE'S longest railway bridge, more than two miles long, is now being erected in Denmark at a total cost of nearly $10,000,000. It will extend between Orehoved and Masnedo, the present railheads of the islands of Falster and Zeeland, and will greatly shorten the traveling time between Copenhagen and Germany. The Danish Government is raising money for this enterprise by a tax on gasoline. As motorists use public highways which railroad taxes help to pay for, it is only fair that the automobile people should pay for a bridge to be used by railroads.

How to Make Model Track

By GEORGE V. HARTMAN

RAILS for 2¼" gage track, which I am going to discuss, are made of 1/16" x ½" bright soft rolled steel with round edges. Strong enough for engines weighing up to 25 lbs., they can be obtained at nearly any steel supply house in 6, 8 or 12-ft. lengths. They weigh slightly over 1/10 lb. per foot and costs 10-12¢ per lb. A less expensive alternative is to have your local sheet metal worker cut strips of #16 or #18 black or galvanized iron to ½" width. Incidentally, lay out as much room as possible for your system and provide rail stock accordingly. If sheared stock is used round the edges with a file. Use the longer length of rails for the main lines.

Now for the ties. These should be ½" square and 4" long and made of a soft wood. Lumber yards often stock this material finished to this size, but you can make them yourself from wood boxes or crates with a saw and a small plane or knife. Inasmuch as a number of ties will be needed (7 or 8 to the foot), and as they must be slotted to receive the rails, a gage such as shown in Fig. 1 should be made. When quite a few ties have been made clamp the gage in a vise so that the slotted side projects above the vise jaws slightly more than the ½" thickness of the ties. Lay the tie on the vise jaws against the gage and clamp it to the gage with a small screw clamp. (10¢ in a 5 and 10¢ store.) Saw into the tie the depth of the gage slot. Now try a piece of your rail in the slot. It should just push in snugly by hand. A little experimenting may be necessary to get the proper fit.

When building the system a pair of rails are placed into the slots of two or three ties to hold them in position and the remainder of the ties slipped on as the track laying progresses. To form curves simply press the ends of the ties toward each other on the inside of the curve. The binding of the ties will hold the track to any curve desired. To hold the rail ends in alignment a number of clips should be made, like those in Fig. 2.

When laying out sidings make them amply long, for your locomotives will be capable of handling long drags and when "going in the hole" for the limited you don't want to have to "saw by." Fifteen feet is none too long, and twenty is better.

First determine where the siding is to be and provide a roadbed wide enough for the two tracks, with at least 3" between them. Run the outside rail of the main line straight through past the siding at both ends. Next run the outside rail of the siding, continuing through the siding and out onto the main line. This gives us a layout as shown by the continuous lines in Fig. 3. The outside of the siding should be at least 7½" from the outside main line rail. Lay the curves into and out of the siding as smoothly as possible.

NOW for the switch points and the frog. These are the only parts which require much time and care. At the place where the switch leaves the

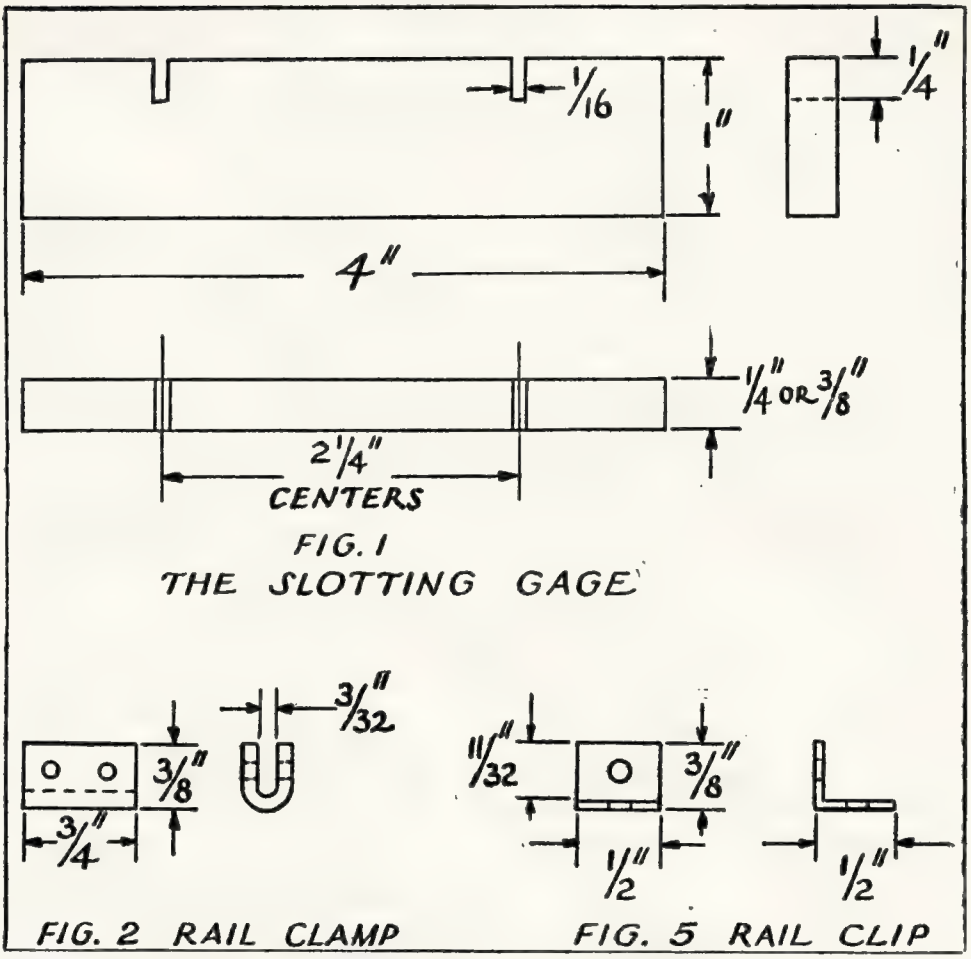


FIG. 1
THE SLOTTING GAGE

FIG. 2 RAIL CLAMP

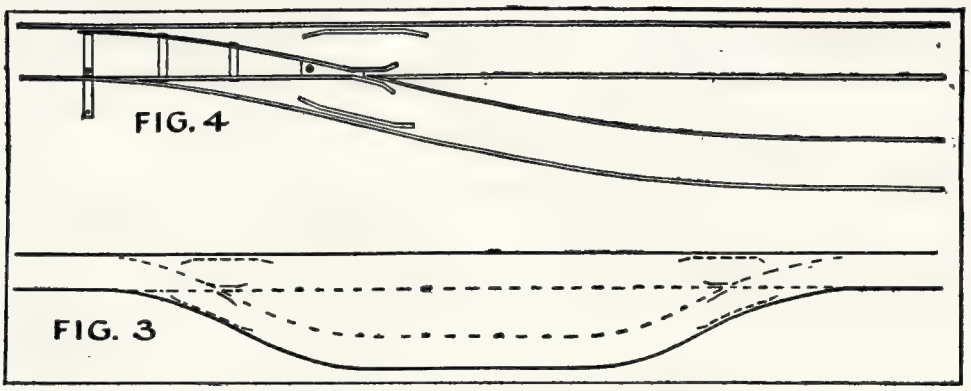
FIG. 5 RAIL CLIP

(Fig. 1) The Slotting Gage Is Made From 1" x ¼" or ⅜" Rolled Steel. (Fig. 2) For the Rail Clamp Use ¾" x 3/32" Soft Steel. Drill and Tap for No. 6 32-Thread Machine Screw ¼" Long. (Fig. 5) Material for the Rail Clip Is 1/32" Soft Steel or Brass ½" Wide Bent as Shown. Solder or Bolt to Rail. If Bolted, Drill as Indicated, Using 9/64" Drill for No. 6 32-Thread Machine Screw. Attach to the Tie With 1/16" x 3/8" Wood Screw

main line provide a number of long ties. These should extend completely across both tracks for some distance past the switch frog to keep the assembly in proper position.

At the switch points extend two ties 4" outside of the track on the side toward the siding to carry the switch stand. If remote control is anticipated extend the ties the same distance (4") on each side of the track.

Next measure carefully from the outside rail of the main line toward the siding a distance of 2¼" and mark each tie with a pencil, continuing these measurements past the frog. Number these ties so as to be able to replace them in order. Now measure and mark from the outside siding rail in the opposite direction until the frog has again been passed. The long ties should be tacked down with a few wire brads to make these markings accurate. Make the saw cuts in these ties to receive the rails. Do not use the gage for this—reasons to be given later.



How to Lay Out a Sidetrack for Your Model Railroad

Now to fit up the switch, replace the ties with the saw cuts, and, using them as guides, shape the rails. Next take a piece of rail about two inches longer than the distance from the switch point to the frog (where the rails cross) and file it on one side on a long bevel (about 2½") to a knife edge, rounding it slightly to prevent an accidental cut while working. The beveled side should be placed toward the main rails. Shape it carefully to the line of saw cuts in the ties to keep the gage accurate.

When the point of the frog is reached make a sharp bend in the rail away from the main line, leaving about ⅛" of space for the wheel flanges to pass through the frog. About 1" beyond the frog point make another bend in the same direction as shown in the drawing. Cut off the surplus stock, and the siding lead point is completed.

Take another piece of rail and bevel as before; lay in position for the main line point, the beveled side toward the rail, and with the other lead point make the two bends to form the other frog jaw. This rail will otherwise be straight.

Cut a piece of 1/32" sheet brass to fit under the frog jaws and with a ¼" angle bent up on each side; solder it to the frog jaws as shown in the drawing, so as to hold the frog jaws in line, about ⅛" apart at the closest point.

Next bend up 3 strips ½" wide of this material and of the proper length to space the two points as shown. Solder or bolt these to the switch points. Drill a ⅛" hole through the plate under the frog to take the pivot screw. The two switch points should be 5/16" closer together than the gage of the track to allow for throwing the switch.

Now take two short lengths of rail and bevel one side of each to form the frog point. If soldering facilities are available the two filed surfaces should be tinned and the excess solder wiped off. These pieces must fit neatly together. Place the two pieces together after bending them both slightly toward the tinned or filed side so that they will hug together when placed in position on the ties. This constitutes the frog point.

When everything is placed in position, lay a straight edge—a piece of rail will do—through the frog or sight along the track, to be sure that the point of the frog does not project into the gage of the track, where a flange can climb it.

To adjust the frog, line the switch for the main and line the frog for the siding; then line the switch for the siding and the frog for the main. When this method is used in adjusting the frog, no matter which way the switch is thrown the frog jaw will be thrown over about 1/64" inside of the frog point.

To make the set-up more realistic a guide rail should be placed ⅛" from each outside rail, as shown in the drawing; although, if the frog is carefully lined up, the trains will highball over it without derailing.

After everything is assembled, adjusted and tried out, take a hot soldering iron and run a small amount of solder into the frog point (where it was previously tinned) to keep the points in alignment. Slot the ties where the points of the switch throw all of ⅜" to allow them to be swung to either side.

It is better to complete the switches and frogs and then connect the two inside rails, cutting them to the proper length to fit in. If the track is used indoors ballast it with fine sawdust to improve the appearance. It will catch any oil dripping from your rolling stock.

Line up the track carefully, lay out curves with a radius as large as possible and allow much "territory" for traffic. The larger the amount of country served the more fascinating the business becomes.

If two rail slots come close enough in a tie to cause wood splitting, secure the rails by a small brass clip made of 1/32" brass bent at right angles, and soldered to the rail on the outside and tacked to the tie.

The Trading Post

I HAVE a Lester German accordion with 10 keys, 2 basses and instruction book to trade for O gage rolling stock. Also, would like information on building model locomotive and tender driven under her own power. Send price lists of fittings and parts.—Victor E. Voges, 77 Hillsdale Rd., Medford, Mass.

* * *

Am building a 2-8-2 type New Haven engine, H-O gage, ⅛" scale. The only help I have is pictures of locos of other roads. Does anyone have suggestions?—R. C. Sumner, 76 Whitmarsh St., Providence, R. I.

* * *

I have various magazines to exchange for anything pertaining to model engines. Will send list to those interested.—J. Brinsley, 2724 Morgan Ave., Bronx, N. Y. City.

* * *

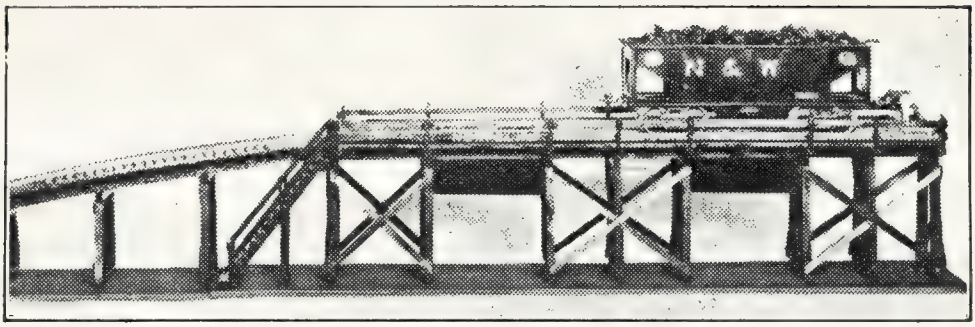
Wish to dispose of my Lionel equipment: No. 60 warning bell; 4 pairs No. 22 standard gage switches, hand controlled; pair No. 77 crossing gates; 3 No. 180 Pullman cars; No. 181 Pullman and baggage car; No. 182 observation car; No. 320 mail car; No. 20 crossing; Dorfan circuit-breaker; type 2 Jefferson transformers; Dorfan switchboard; No. 24 Goodell-Pratt polishing head. All cars have new trucks and automatic couplers.—Alvin S. Mattes, Creamery, Pa.

* * *

Would like to trade 6 pairs of Ives old-style automatic O gage couplers for an 8-wheel freight car, or electric or mechanical locomotive or a pair of switches, O gage only; also an Ives 1120 steam type to sell or trade for other O gage equipment.—Ralph W. Traxler, Box 124, La Place, Ill.

* * *

I would like to hear from someone in my locality interested in electric roads. My system is modeled after the B. M. T. subway. I have 2 subway cars, an electric locomotive and a new D type unit (which is operating at the present time on the subway).—Millard W. Pike, 1716 E. 26th St., Brooklyn, N. Y.



Miniature Coal Trestle and Incline Constructed by Paul R. Dennis.

What am I offered for a Lionel No. 400-E locomotive and tender, practically new?—P. Gottschall, 934 Rose St., Reading, Pa.

* * *

I have many magazines, including "The Locomotive Engineers Journal" (full of interesting articles) to trade for steam model equipment.—Jack Hartlaub, 144 Broadway, Newark, N. J.

* * *

I have the following O gage equipment to swap for a working model of a steam locomotive, any type: Ives electric loco, No. 3250; tank car, Peerless No. 1000; Am. Flyer caboose, No. 1117; Ives box car, No. 85829, Erie type; Ives box car, No. 151370, Rock Island refrigerator; Ives box cars, No. 64387, Can. Pac.; stock car, foreign make; baggage and express cars, No. 425, N. Y. C.; comb. baggage and passenger, No. 5412, P. R. R.; passenger, No. 3215, P. R. R.; observation car, No. 250, P. R. R.; observation car No. 73; flat cars, 4-wheel; pr. Ives hand-operated switches; bridge; 20 sections straight track, 15 sections curved track, all in good working condition. No junk. I want a model that would look good on a mantelpiece.—Leroy C. Lowden, 11231 Missouri Ave., W. Los Angeles.

* * *

O gage model railroaders, please write.—H. L. Blundon, Berwyn, Md.

* * *

What am I offered for a complete perfect Lionel O gage outfit, original cost $95? It has 2 transformers, automatic switches, houses, 2 sets of trains, etc.—Eugene W. Chabert, 961 76th St., Brooklyn, N. Y.

* * *

I would like to dispose of some standard track, 2 hand switches, a crossing, 2 cars, etc. I want to get a narrow gage outfit.—E. J. Waldron, 1821 S. W. 24th St., Miami, Fla.

I have a mountain type engine (4" gage), with 2 extra boilers and extra wheels, to sell or trade for "Buddy L" outdoor railroad set or used Lionel equipment, etc. Write for photo and details.—Lee McClain, 1413 Fort St., Miles City, Mont.

* * *

I have 40 back copies of "Railroad Stories" to exchange for model driver wheels, cylinder block and booster truck for Hudson type locomotive, O gage. Canadians, please write; others would have to pay duty on the magazines. — George Meades, 315 Leslie Ave., Oshawa, Ont., Canada.

* * *

I wish to buy a second-hand American Flyer, standard equipment.—Scott Nixon, 126 8th St., Augusta, Ga.

* * *

I want to get in touch with model fans interested in OO gage locomotives.—Walter Newman, 1309 S. Main St., Wilkes-Barre, Pa.

* * *

Why not run articles on building model snowplows, oil-electrics, and other special equipment? They are just as necessary for realistic roads as the "varnished wagons." I have a model road of the N. Y. Central, O gage, including 2 electric engines, 0-4-0 switcher, 4-4-2 passenger jack, 3 Pullmans, baggage car, coaches, derrick, snowplow, and freight cars. The few manufactured pieces I own have been repainted and lettered N. Y. C. style. One can easily get a realistic effect from cars of cardboard (except couplers and trucks). My trackage totals 30 ft. and I keep adding from time to time. I am now changing much of the manufactured track and have begun to use spikes and wooden ties. I wanted to use M. C. B. couplers on my cars, but I don't know how to make a mold to cast them. Can anyone help?—Everett Gallison, New Hampton, N. H.

Model Builders

RECENTLY I built the miniature coal trestle and incline shown here. Together they are 6′ long. The trestle is 7″ high from the base of supports to the top of the rails, and 6½″ wide. All the railroad ties, supports, etc., were made of soft white wood ⅜″x⅜″. The walkway floor, steps and railing and the diagonal sway bracing were made of wood about the thickness of cigar-box cedar. All heavy pieces were nailed together with ¼″ wire brads, while ½″ brads were used for thin ones. The track, 2¼″ wide, was strengthened and held in place by sturdy cross-ties. The car is a Lionel version of the N. & W. Class HA 57½-ton hoppers.—Paul R. Dennis (N. & W. yard clerk), 178 E. 11th Ave., Columbus, O.

* * *

The Columbus (O.) Railroad Club is a "live wire" organization of model builders and engine picture fans. We are working on plans for a model system. In our club we already have the following models: Pennsy E-6s, B. & O. "Pres. Washington," Pennsy K-4s, two C. & O. F-19's and 2 N. Y. C. Hudson types; also many ¾″ scale model freight and passenger cars. Our president, Mr. Underwood, is now working on a Southern Pac. P-13 locomotive. He plans to construct a complete model of the S. P. "Sunset Limited."

We have had fine coöperation from railroad officials. C. F. Lingenfelter, Supt. of the P. R. R. Columbus Div., is an honorary director of our club. He spoke at our last meeting on "Handling Men." He granted us the use of the P. R. R. club rooms in Union Station, where we meet every two weeks. Strangers welcomed.—R. T. Moore, vice pres., C. R. R. C., 182 E. Walnut St., Westerville, O.

* * *

I built a model Consolidation type loco, at a cost of only 10c. That sum represents an outlay for saw blades. There was no other expense. The engine was modeled after Class H-10s, Long Island R. R. She is numbered 101. Although she is now a stationary model, a motor could be put into her cab or tender. Her boiler is a piece of wood 1¾″ in diameter and 6″ long. The firebox was made by getting 2 pieces of wood and hollowing out their centers so they sit on the boiler, one on top, the other on the bottom or ashpan. This firebox is the "wagon top" type used on Pennsy engines.

The cab was made from box wood; has seatboxes and a firedoor, throttle and air-brake handles. Driving wheels came from an old A. F. spring locomotive. Truck wheels were taken from an old 4-wheel car. The tender, built from box wood, holds real coal. Lionel trucks were used. Generator, exhaust stack, sand domes, etc., were carved by hand. Pipes were made from radio wire. Engine and tender are 17½″ long, 4½″ high, 3″ wide. The whole job, including painting, took 2 weeks. The fact that it cost only 10c should encourage others to build models. My next will be a Class G-5s of the L. I. R. R.—Richard Harrison (age 15), 620 75th St., Brooklyn, N. Y.

* * *

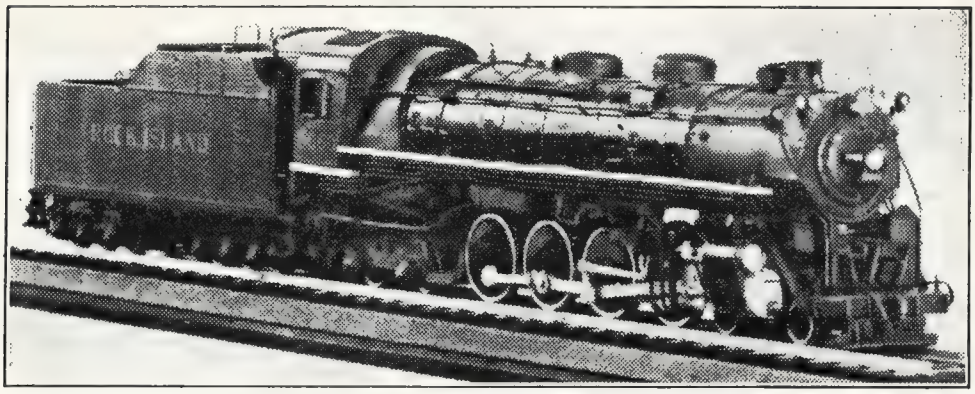
Why do most fans prefer O gage engine models? It is hard for the average man to include minute details in so small a size. Why do they omit the outside dry pipe? Some say it doesn't look good. I'd like to know whether most people build models for beauty or for the love of mechanical working? Model makers, besides being addicted to too large cabs on their engines, seldom do justice to the size of the firebox; and they are stingy as to piping, railing, chassis details. And why do they all use the Walschaert valve gear and not the Baker? Would like to hear from someone who has built a "camel-back" engine model.—Bruce Hastie, 4546 49th St., Long Island City, N. Y.

* * *

The Flieshacker Miniature Ry.—an amusement line in San Francisco—has a 4-4-0 American type coal-burning engine, 2 passenger cars and 1 freight car, but it collects about $75 a day. It is ¼ mile long (22″ gage) and the train has jumped the track several times.—Angelos G. Misthos, 637 Cole St., San Francisco.

Free Tail Sign for Model Trains

AN exact miniature reproduction in full color of the sign carried on the observation platform of "The George Washington" will be given free to anyone who sends a 3c. (U. S.) stamp to cover mailing cost. Address Chesapeake & Ohio Ry., 508 Transportation Bldg., Washington, D. C.



Model of Rock Island No. 5060, Built by E. B. Sawyer

How I Built a 4-8-4 Type

HAVE just completed an engine model. I got the "bug" after seeing the models in "Railroad Stories" for years and I selected the Rock Island 4-8-4 5000 series which ran through here.

The master mechanic at Dalhart, Tex., sent me an erectors' blueprint from which I could get measurements. These prints were about 1½" scale and it was not hard to get the ½" scale which I desired. First I took several pictures (close-ups) to get details which did not appear on the blueprints. After buying ½" scale rails, I made the ties and ground off some large-headed box nails to the shape of track spikes. Then I made the wooden roadbed and covered it with roofing which looks like ballast.

The frame on these engines is one big casting—frame, saddle, cylinders and steam chest are all cast together—but I built mine up separately. My frame is poplar. I made dummy springs which are equalized all the way through. The saddle came from a piece of 2"x4" white pine. I turned the cylinders and steam chests and fastened all together with dowels and glue. The drive wheels were turned out of poplar. Then I whittled out between the spokes and shaped them with small files and sandpaper, drilled holes and glued in the pins and glued on the counter-balances. Glued the wheels on axles, which run in adjustable journal housings in the frame.

Pony trucks were made and pivoted to the saddle. Pilot was built up of small pieces and fastened to the pilot beam. Couplers I whittled out of wood, as I did the air pumps. Rear trucks were built up with a dummy booster on the rear wheels. They have a swing bearing and these springs are equalized as on the main frame.

I tried to make the Baker valve gear of wood but it was too frail, so I made it of sheet copper, which was easy to work. This and the reversing gear are workable. The crosshead and siderods I made of hickory. I turned the boiler from a piece of 4"x4" pine. It was supposed to be well seasoned, but I did some shrinking later, so that some of my jacket straps had to be taken off and made smaller. I used another piece of pine for the firebox, which was shaped and glued to the boiler. Gimp tacks were used for rivet heads. Stack, domes and throttle dome were turned and then whittled to shape and glued and doweled on.

Headlight, markers, air reservoirs, etc., were whittled out. In fact, I did a good share of the work on this model with a jackknife. The cab I made of tin, using relief paste to make rivet heads on tin. Cab has windows of wood with mica for glass.

All of the journal boxes on engine and tender have tin-hinged covers. The feedwater pump on the left side and the injector on the right are in place. Handrails, grab-irons, steam and air lines are wire of different sizes. Steps, ladder on tender, etc., are of tin or sheet copper. The tender itself is of white pine with gimp tacks for rivets. It has water and oil connections with the engine. The 5060 has complete brake rigging which works. The bell is the only piece I bought, outside of the rails.

If a motor were attached to the drive axle the wheels and valve gear would work. The Rock Island is showing it in several places on this division. The model is 39½" from coupler to coupler, about 7½" high, 6" wide, 2½" gage.—E. B. Sawyer, 120 E. 12th St., Hutchinson, Kan.

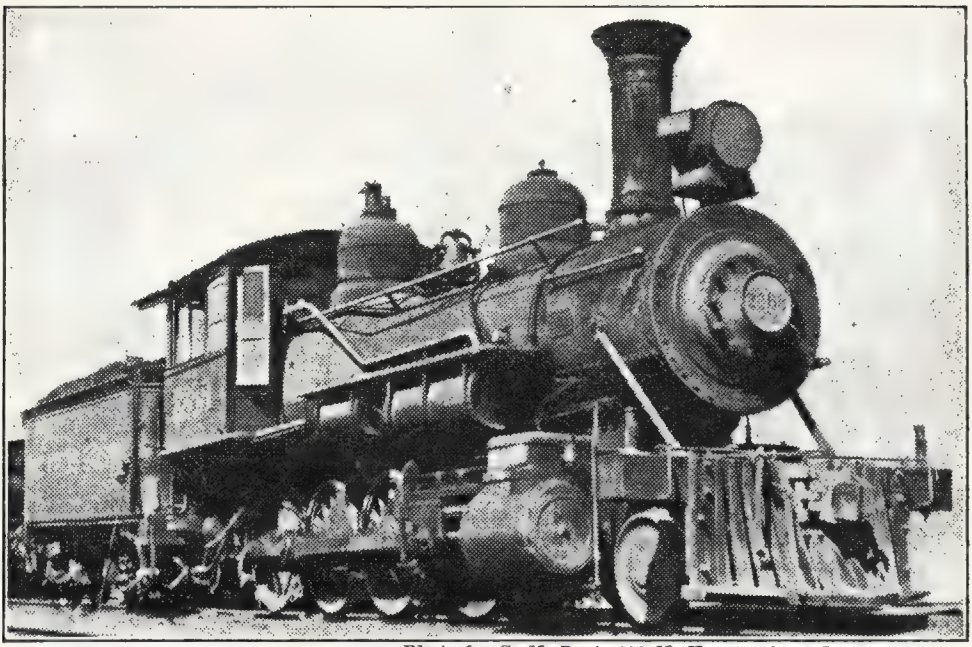


Photo by G. M. Best, 108 N. Harper Ave., Los Angeles.

Coal Fields Ry. Engine No. 2288, Formerly Stone Canyon Ry. No. 102 (See Nov., 1933, Issue, Page 92). This 2-8-0 Type Used To Be N. Y. Central & Hudson River (Now N. Y. C.) No. 102. She Was Built by Schenectady in 1890, Has 19 x 26 Cylinders, 53-Inch Drivers, 120 Lbs. Pressure, Exerts 18,000 Lbs. Tractive Force. Photo Taken Last Summer at McKay, Calif., Where She Was Still Running between the Mines and McKay. Although Her Cab Is Numbered 2288, She Bears Her Old Number 102 on the Headlight

On the Spot

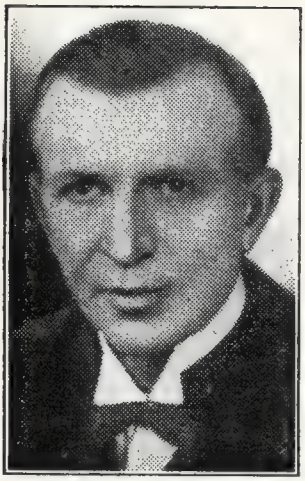
Reminiscences, Comments and Criticism

Frank W. Courson

I WOULD gladly pay $50 for information leading to the return of my son, Frank, missing from home since March 9, 1933. He is now 17. This photo was taken when he was 15½. Frank was 5½ feet tall, of slender build, weighing 138 lbs., but may have filled out since then. Has dark brown wavy hair, gray eyes, rather heavy eyebrows, one chickenpox mark between the eyebrows, and porcelain fillings in the upper front teeth. He was popular at school, but was suspended without sufficient cause, became frightened and ran away. He may be using another name.

Frank's mother died when he was 4. I have been in P. R. R. engine service more than 31 years. Fired almost all freight runs on the Pittsburgh Div., was promoted to engineer, and for 16 years I hauled almost every freight run out of Altoona, besides being an extra passenger engineer. Now firing a short freight run at Wilkinsburg. Member of B. of L. F. and E., Lodge 287.—G. M. COURSON, 460 S. Trenton Ave., Wilkinsburg, Pittsburgh, Pa.

In the Maple Leaf Dominion



S. J. Hungerford

S. J. Hungerford, the new president of the Canadian National System, was born at Bedford, Que., in 1872. When he was 14 his father died and he got a job in the Southeastern Ry. shops at Farnham. After completing his apprenticeship he worked at various points in Que., Ont., and Vt. In 1901 he was appointed locomotive foreman of the Canadian Pacific at Cranbrook, B. C., and developed new features of shop methods there. In 1903 he was appointed master mechanic of the C. P.'s Western Division at Calgary. A year later he was placed in charge of building the C. P. shops at Vancouver.

In 1910, when the Can. Northern Ry. was expanding rapidly, Mr. Hungerford joined that company as superintendent of rolling stock. In 1912 he became general manager of Eastern lines for the Can. Northern, and had much to do with the movement of Canadian troops during the World War. In 1918 when the Can. National System began to take form he was appointed assistant v. p. of the operating, maintenance and construction departments. When the Grand Trunk Pacific was brought into the C. N. R. fold in 1920 he became vice president. Following the retirement of Sir Henry Thornton in 1932, Mr. Hungerford was appointed acting president, and is now president.—G. H. LASH (C. N. R. press representative), 673 5th Ave., New York City.

* * *

Your April issue contained pictures of several old Canadian locomotives, requesting details.

On page 84 appeared Prince Edward Island Ry. locomotive No. 1. This curious-looking engine was one of 7 built by the Hunslet Engine Co., Ltd., of Leeds, England, in 1872. The freakish design was probably the English builder's idea of what a Canadian locomotive should look like. It included such unusual features as slab frames, inclined cylinders, steam chests on the inner sides of the cylinders, wooden brake shoes, combined saddle and side tanks, sand boxes on the running board, small coal bunker and an unusual bell bracket. These 7 engines remained in service until about 1890; Nos. 1 and 2 in their original form, but I believe the other 5 were converted into tender engines.

The principal details are builder's numbers, 84 to 89 and 95; gage, 3 ft. 6 in.; cylinders, 10 x 16 in.; diameter of drivers, 42 in.; diameter of bogie wheels, 22 in.; capacity of saddle tank, 380 gals.; capacity of side tanks, 200 gals.; fuel space, 36 cu. ft.

On page 137 appeared No. 126 of the Great Western Ry. of Canada; this was one of the first standard gage engines on that road. G. W. Ry. records from 1870 to 1882 are thought to have been lost, so it is impossible to give exact details of this engine. However, she was a typical G. W. engine, with slab frames, automatically operated bell on the buffer beam, long whistle trigger and Ramsbottom safety valve. The woodcut you published came from the original photo taken in 1870, now in possession of the Canadian Railroad Historical Association.

Intercolonial Ry. No. 160 (April issue, page 140) was one of 60 engines sent to Canada by Dubs & Co., of Glasgow, Scotland. No. 160 was one of an order of 5 engines built in 1888, numbered 33, 201, 202, 160 and 146; renumbered in 1912 from 1027 to 1031, Class D13; withdrawn from service about 1914. Though built in Scotland, plans and specifications were supplied by the railway, and the engine was purely American type. The builder's number was 2359E, the cylinders 18 x 24 inches and the drivers 61 inches.

The C. R. H. A. has on file complete or nearly complete rosters of the locomotives of most Canadian railways, ancient and modern.—ROBERT R. BROWN, secretary, Canadian Railroad Historical Association, 5359 Park Ave., Montreal, Canada.

* * *

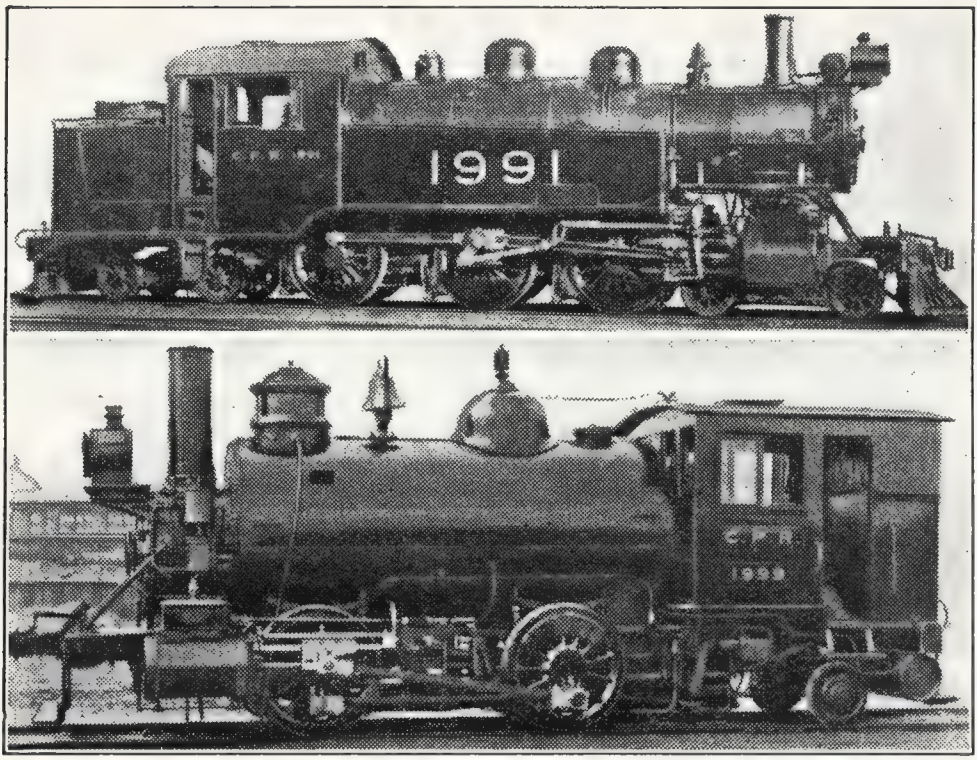
David E. McKenzie, C. N. R. engineer, died at The Pas on March 3, 1934. Dave was known to readers of RAILROAD STORIES as a character in the true tale, "Ordeal of Fire" (Feb. issue), written by his brother, E. Frank McKenzie. No. 2163, the locomotive Dave had driven for years, waited on a spur outside the little church during the funeral services. Her bell tolled a farewell and her smoke drifted over the church, causing shadows to fall through the sunshine over the bier of one whose hand would guide her no more.—JACK KERR, Box 150, The Pas, Man.

* * *

An unusual mishap—the freezing of a whistle and bell on a 6000 class locomotive—delayed a C. N. R. transcontinental train 45 minutes at Edmonton, Alta., in the recent cold spell, before the crew could thaw out the frozen valves.—E. F. MCKENZIE, 131 Canora St., Winnipeg, Man.

* * *

I would like information on the wreck which occurred on the C. M. & St. P. Northern Div. east of Rubicon, Wis., in 1909 or 1910. A freight passed up the Hartford water tank and found the one at Woodland empty. They set their train out and proceeded to back up to Hartford for their water. At the east end of the passing track switch at Rubicon the tender left the rails,



From Joseph Lavelle Photo Collection.

A Couple of Canadian Pacific Tank Style Engines. No. 1991 (Upper) Is Now 5991, Has 20¼ x 26 Cylinders, 63-Inch Drivers, Weighs 236,000 Lbs., Exerts 29,000 Lbs. Tractive Force. No. 1999, Formerly No. 116, Is No Longer in Service

jack-knifed, tore up some track and threw the engine over on her left side. Fireman "Long John" Schroeder jumped in time, but Engineer Geo. "Sy" Duncan and the conductor stayed on. Does anyone know where these men are?—A. A. HEGY, 214 15th St. N., Lethbridge, Alta., Canada.

* * *

Five hundred hours of patient, skillful work went into the making of an inlaid table recently completed by George Ridgway, C. N. R. crossing watchman at Hamilton, Ont., says the *Canadian National Railways Magazine*. Ridgway used 4,816 separate pieces of wood—more than 3,000 in the top alone, the surface of which is 2 feet square. The woods retained their natural colors and were beautifully matched. Among them are apple, ash, beech, birch, baywood, basswood, cherry, plum, cedar, elm, fir, gumwood, ironwood mahogany, mulberry, maple, light oak, brown oak, pine, black walnut, light walnut and satin walnut.

* * *

To all the readers who were kind enough to write in and say how much they enjoyed my story, "A Fool for Luck" (March issue), I take this opportunity to express my thanks. It is impossible for me to reply to each one personally. In between runs I have only a few hours for writing, so cannot say when I will be back again with another yarn. At present I am working on a sea story of the old windjammer days. Before I started railroading I was a salt water seaman, trained on the windjammers. Before I was 21 I saw more of the world than most people see in a lifetime. There is a romance about the old sailing ships which you will not find in modern railroading.

If any readers in England would like copies of train orders so as to understand American railroading, they should send me their names and addresses and I will forward the "flimsies."—WM. J. PARRY, C. N. R. engineer, 906 Chatham St., E., Windsor, Ont.

* * *

The Soo Line passenger engines, 2700 and 700 classes, which run by the N. P. roundhouse here, have the cleanest cutoff I have ever heard. Most engines when hooked in the center with throttle wide open are a trifle "lame," but not these. For instance, the 705 will come up the grade—a stiff one, too—with 5 or 6 steel coaches, Johnson bar in center, throttle open, and cutting off as even as a 2-cycle gas engine. They must have good valve men on the Soo, for no type of valve gear sounds different.—M. A. LOGAN, N. P. roundhouse, Mississippi St., St. Paul, Minn.

"Get Out the Big Hook!"

The "Minas Prince," a 3-masted lumber schooner, is a jinx ship as far as the New Haven R.R. is concerned. A few months ago on her passage up the Neponset River, she caused the draw to be opened during the morning rush hours. A waiting train was hit by a speeding Pacific type engine from Braintree, tieing up the road.

Later the empty ship came back down the river. In the very same place she became lodged with a tug in the narrow channel. Before the draw could be lowered the 2 boats had to wait 12 hours for another tide to loosen them. This tie-up was worse than the preceding one. Then the New Haven tried to get an injunction preventing boats from coming up during rush hours; but they were overruled, as the river is navigable only at high tide.—E. G. Rioux, 114 Sagamore St., Atlantic, Mass.

* * *

The longest wreck I ever heard of occurred Nov. 17, 1924, on the C. I. & W. near Hamilton, O. It was 3 miles long.

This was a red ball freight east out of Decatur. On the district west of Hamilton, B. & O. crews handled some of the C. I. & W. trains in order to equalize some mileage made by C. I. & W. crews between Hamilton and Cincinnati. A B. & O. crew making its first trip on the C. I. & W. track was handling the train.

Coming into Hamilton, there is a very steep grade. A wheel on a meat car broke and set the car to riding the ties. Thirteen other cars behind it left the track and piled up at different points along the steep hill as the engineer failed to stop his train.

For 3 miles the track was chopped up so badly that all new ties had to be put in. The C. I. & W. had to use its entire reserve supply of ties for this purpose.—Ralph W. Traxler, Box 124, La Place, Ill.

* * *

I have pulled the throttle on the B. & M. 2-6-0 type, No. 1389 mentioned in "The 999 Meets the 666" (Feb. issue). An uncle of mine happened to be the engineer of that hog!—A. Kern, Harmon-on-Hudson, N. Y.

* * *

Leon Denis, of Schofield Barracks, Hawaii (April issue), is all wrong as to the engines used in the Point of Pines stunt wreck. They were Boston & Maine standard gage engines, 4-4-0 type, Nos. 348 and 257; not Boston, Revere Beach & Lynn. No. 348 was in charge of Engineer C. H. Chase, who died a few years ago, while the 257's engineer was J. L. Francis who received his pension 20 years ago. One of the firemen was C. H. Call, now on the engineers' spare board at Concord, N. H. The first time I fired, I worked for him on the Oakdale & Rutland helper No. 1389 which was used in the Brockton Fair collision last September.

At the time of the Point of Pines wreck I was 14; my father, who worked on the old Eastern R. R. (later the B. & M. Eastern Div.) took me as a treat. A large crowd was present and the police had to try several times before they could push the mob back so that the throttles of the engines could be pulled out. They didn't gather much speed as the track was short, and only their front ends were broken. Souvenir hunters got everything they could lay their hands on.

I remember Charles W. Tyler (author of "The Western Union Kid") when he was trying to keep them hot and full of water on the old Fitchburg Div.—Elmer E. Nary, Wilmington, Mass.

Oddities of the Roaring Road

Near Waynesboro, Va., Howard Gibson, C. & O. Ry. employee, spied a supply train clacking down the mountain at 40 m. p. h., saw a freight train standing in its path. He threw a siding switch, shunted the speeding supply train to safety. His reward: severe reprimand for unauthorized possession of the switch key.—*Time* Magazine.

* * *

I have had only 1½ hours of train service. In 1907 I was a cook and went West to make my fortune. After drifting around awhile I reached Forsyth, Mont. I was standing on the N. P. depot there, trying to figure a way back East, when a small, redheaded man asked if I wanted a steady job.

"Naw," I said, "I want to get back home."

"Well, will you take a train on a 46-mile run to Miles City? Two of my crew are out sick and I need a man right now."

I agreed. He gave me a lantern, I got into the engine of a stock train, and we were off. When I got to Miles City an hour and a half later there was an order to put up at the hotel there. The following morning after breakfast, my employer, Trainmaster Flynn, paid me $3 and sent me on my way rejoicing.—Joseph A. Warren, Star Route, Bucksport, Me.

* * *

Earp's story, "Always Inventing Things" (April issue), brought to mind a hogger on the "Bee Line" who had a habit of using the "jimmy" (straight air brake) in such a manner that he often jolted the men in the crummy rather badly. A certain conductor decided to break him of the habit. Watching for the use of the jimmy, the con opened the conductor's valve and manipulated it so that something happened. The "train line" (now brake pipe) emptied, and the brakes

went on in emergency. The con thought an air hose had burst; so, carrying along a new one, he went ahead. He found 4 drawheads on the ground!

They were several hours getting the main cleared, as they only had one chain and had to make 2 trips to get the train in. This sewed up the main, delaying all the hot shots, freight and passenger. No one ever told what caused the tie-up, but both got plenty of brownies. After that, the hogger stopped fooling with the jimmy and the conductor would pull the air only in an emergency.—PAUL CHIPMAN, recording secretary, Lodge No. 1, Int. Asso. of Machinists, 919 Atlanta National Bldg., Atlanta, Ga.

* * *

An unusual thing happened recently in the Dewitt, N. Y., enginehouse. An employee who came to work drunk was sent home by his foreman. However, instead of leaving the premises, the fellow crawled into the firebox of a "dead" engine and up onto the brick arch, where he fell asleep. In due time the engine was fired up. By the time they got him out, he was badly burned. —T. J. MALLETT (N.Y.C. fireman), 830 Ann St., Watertown, N. Y.

* * *

"Locomotive Oddities," by Chas. W. Fisher (April issue), referred to the Warren twin stack. I recall several Toledo, Peoria & Western engines equipped with such stacks. Each stack was cast in one piece, with tapered columns and plain bead around the top. There were 2 draft nozzles, one for each opening in the stack, each cylinder having its own exhaust nozzle. Just what advantages this apparatus had I don't know. One old-timer told me of a big disadvantage; while one nozzle was exhausting, air from the atmosphere rushed down the other opening in the stack, thereby killing the vacuum in the front end. He said those engines would not steam properly, due to lack of draft. —FORDYCE BROWN, 825 Park Ave., Springfield, Ill.

* * *

Warren's invention was described in a book, "The Locomotive Up To Date," published about 1898, as follows:

"The draft equalizer has been applied to more than 20 locomotives on the T. P. & W. Ry. It has been in use ever since 1895, giving good satisfaction. It was invented by W. B. Warren, general foreman of the T. P. & W., Peoria, Ill. This invention aims to provide a construction of exhaust passages and smokestacks which will create (with larger exhaust nozzles) a greater and more equal draft through the flues of the boiler, thereby saving fuel, a better steaming engine, and making greater speed with less weight of motive power.

"Each exhaust of steam from each cylinder of engine exhausts through both smokestacks, thus creating a greater and more equal draft or vacuum through all the flues that can be produced when exhausting steam into one smokestack on center draft through the center flues, and not through the of boiler. The single stack tends to produce a side and center flues, as in case of this invention, thereby losing the greater advantage of the heating surface in the side flues and sides of boiler."

Advantages claimed over the single stack were: (1) Greater draft on sides of boiler. (2) More steam with larger exhaust nozzles, thereby reducing back pressure. (3) More speed with less weight of motive power. (4) 40 % larger area of smokestack opening. (5) 20% larger area of exhaust nozzle opening. (6) Saving in fuel. (7) Saving on wear of boiler flues. (8) Greater steaming capacities with smaller boilers.—R. A. RAYER, 1033 S. Chicago Ave., Kankakee, Ill.

* * *

The article on "Locomotive Oddities" referred to the "Vixen" on the old Dubuque & Sioux City R. R. From 1865-8 I lived at Cedar Falls, Ia., on that road and often saw the "Vixen" hauling work and gravel trains. She was such a curiosity, owing to her peculiar construction, that she attracted much attention but she appeared to be efficient with the few cars hauled at that time. She looked somewhat like the "Shakopee," as shown in the illustration.

The engines on the road in those years, all built by Rogers, were: No. 1, "Dubuque"; 2, "Delaware"; 3, "Sioux City"; 4 I believe was the "Vixen"; 5, "E. Stimson"; 6, "Platt Smith"; 7, "Iowa"; 8, "Waterloo"; 9, "D. W. James"; 10, "A. Campbell"; 11, "M. K. Jesup"; 12, "R. B. Mason"; 13, "Black Hawk"; 14, "Manchester"; 15, "Cedar Falls"; 16, not named.

At Dubuque I have seen a single-driver engine, the "Bellevue," somewhat like the "Vixen." On the Dubuque South Western there was a single-driver, the "Prairie King," and a 4-4-0, the "Marion," both wood-burners I used to see those at Farley Jct. I wish I knew more about those old-timers. Perhaps some reader can tell us more.—H. W. KEMBLE, 12 Elm St., Auburn, N. Y.

What Would You Do?

SUPPOSE you are an engineer on a helper locomotive. After you have shoved a train up a 12-mile hill, you cross over with the current of traffic and start to back down hill. The hill is so steep that the engine will coast all the way down without using any steam. At the foot is a crossover and an interlocker plant. As you get within 1,000 feet of the crossover you see a passenger train stopped there. You try your air and find you have no brakes. You grab the reverse and find it is disconnected at the front end of the reach rod. How can you stop and avoid hitting the train on the crossover?

This actually happened to Engineer Geiger on the L. E. & W. years ago, resulting in a bad smash-up.

Samuel J. Gordon (conductor),
Vanlue, O.

The Reader's Viewpoint

On a vacation in the mountains last summer I became acquainted with Oliver B. LeVan, N. Y. O. & W. engineer. He told me many of the fine points of railroading, in personal talks and in friendly letters written after I returned from my vacation. Mr. LeVan had been an engineer since 1904. He used to pull official car 30, carrying the "brass hats," and also was engineer of the pay train back in the days when the road distributed wages to all in cash. In March he died of heart trouble in the cab while driving a freight on the Summitville-Kingston branch route. Mr. LeVan was a good pal. I miss him very much.—JACK W. FARRELL (age 12), 30 Cooper St., New York City.

* * *

John Johns injected a love theme into his story, "Running Special" (March issue), much after the manner of a drunken switchman kicking a car of coal into a spur where the boss fails to silver the palm occasionally. And at the end of his story he elevates the trainmaster to a position of authority wherein he issues brusque orders to his superintendent. Since when did trainmasters tell the Old Man where to shove in?—E. A. WAMSLEY, Brentwood Hts. Station, P. O. Box 15, Los Angeles.

* * *

I am a stenographer on the staff of the South African Rys. and Harbours administration. Have been in the R. M. S. Section nearly 5 years. Except for the Russian system, our railway is the world's largest state railway.—(MISS) THELMA WOODWARD, Room 34, Road Motor Service Section, South African Ry. Hdqrs., Johannesburg, South Africa.

* * *

I have worked on the New Zealand Rys. as permanent way hand (section worker), bridge carpenter and assistant guard. Would like to hear from anyone interested in N. Z. Rys.—P. E. WEATHERILL, 57 Porton Park Ave., Lower Hutt, Wellington, New Zealand.

* * *

There is much activity these days at New Bloomfield, Pa., eastern terminal of the narrow gage Newport & Sherman's Valley R. R., leased and operated by the Susquehanna River & Western.

One of these days No. 5, the small gage 4-4-0, the only one of the 3 engines in service, will puff out of the enginehouse, back down the main and hook on to a string of cars to drag them up the valley to Blain. This will happen just as soon as the snow melts and frost is out of the ground.

Upon arrival of the train in Blain, the men will immediately begin tearing up the tracks of the once-busy little pike. Nearly 10 miles of track will be taken up between Blain and Loysville.

All that remains of the Newport & Sherman's Valley is that section between New Bloomfield and Loysville. Officials of the road sadly admit that even this may go within a short time.—RICHARD H. STEINMETZ, Railroad Editor, "Harrisburg Sunday Courier," Harrisburg, Pa.

Your April issue states that the B. & M.'s petition to abandon train control was denied. However, a later petition was permitted and the B. & M. Fitchburg Division is now equipped for locomotive continuous cab signal indicators.—R. W. PERRY, editor of "The Enthusiast" (N. A. R. E. publication), 35 Clarke St., Lexington, Mass.

* * *

Errors in Railroad Movies

Here are some railroad errors in the movies: "Fugitive Lovers" shows a bus between Pittsburgh and Uniontown, Pa., passing a freight train drawn by a Santa Fe Ry. engine! "Convention City" shows a special train pulling out of a station labeled "Atlantic City." This engine, too, had A. T. & S. F. on its cab! I had hoped to see a Reading G-1sa type in action. Twice I saw "The Return of Casey Jones" and was quite disappointed. Evidently it is impossible to see a decent railroad movie.—S. P. DAVIDSON, 902 Swann St., Parkersburg, W. Va.

* * *

In the movie "Lone Cowboy," Jackie Cooper is supposed to be on the main line of a Western railroad. The track was in very poor condition, with grass growing between the ties; anyone could tell it had been abandoned some time ago!—FRED ESPOSITO, 315 E. 153rd St., New York City.

* * *

Why do American movie companies use only either S. P. or Santa Fe engines? In "Bombay Mail" they used S. P. No. 4323, a 4-8-2 type. The lettering E. I. R. on the tender was correct, but the E. Indian Ry. does not run into Bombay. It is handed over to the Gt. Indian Peninsular Ry. at Allahabad. The pilot and buffers were O. K., but an automatic coupler was shown in place of the link and hook style used in India! However, the wonderful shots of drivers and valve gear in motion are worth the price of admission.—C. W. MENDENHALL, 1701 W. 60th St., Seattle, Wash.

(EDITOR'S NOTE: S. P. and Santa Fe engines appear in movies because those roads pass through S. Calif., where most films are made.)

* * *

Information Wanted

Can anyone supply information about the Elgin, Belvidere & Rockford Electric Line (not sure of name) which ran from Elgin to Freeport, Jonesville, Beloit, Rockford, and Belvidere, Ill?—NORMAN STOCKDALE, 831 N. Washington St., Wheaton, Ill.

* * *

Since 1910 has there been a passenger engineer under 25 years of age? Who can give details?—JOSEPH BURKE, Box 98, Hilton, Calif.

* * *

Who knows the words of "I Don't Like No Railroad Man"?—EDWARD THIEL, 132 Hillcrest Ave., Cranford, N. J.

* * *

In my collection of employees' timetables I have a No. 8, effective Jan. 2, 1916, on the Kansas City & Memphis R. R. in Arkansas. I would like to get information on this road, also other timetables.—LEE K. ALLEN, 209 Oglesly St., Salem, Ill.

On the Jersey City pipe line in this town you can see a 4-wheeled truck, a few old ties, a boiler and some rails, all rusted; was there a railroad here? If so, would like to get details and photos. —ALLAN ANDERSON, 120 Fern Ave., Lyndhurst, N. J.

* * *

Would like to hear from engineers or firemen. —ROBERT CRIBBIN (age 17), 451 Norwood St., East Orange, N. J.; JOSEPH SWEETMAN, 139 Highland Ave., Jersey City, N. J.; RALPH ALVAREZ, 16 Woerd Ave., Waltham, Mass.; KENNETH C. HERSEY, 41 Dearborn St., Portsmouth, N. H.; CLINTON L. BARDO, 665 3rd Ave., West Haven, Conn.; FRANK F. GRANDINETTI, 8016 15th Ave., Brooklyn, N. Y.; JOHN B. HOLT, 12937 Cedar Rd., Cleveland Hts., O.; JOHN FELLOWS, Box 425, Scarsdale, N. Y.; DANIEL NICKERSON (age 16), 929 Hancock St., S.E., Grand Rapids, Mich.

* * *

The Engine Picture Club

In the 4 years I have been a member of International Engine Picture Club I have received nearly 10,000 snaps in exchanges, and I thank you for creating our club. Now I want to hear from fans on the Santa Fe, especially in Albuquerque, N. M.; Winslow, Ariz.; Gallup, N. M.; or La Junta, Colo.; also anyone on the T. & P. at Ft. Worth, Dallas or Texarkana, Texas. Will give free photo of S. P. or Santa Fe power to those who write.—R. C. SELLON, 1014 N. Palm Ave., Burbank, Calif.

* * *

I have 2 old engine photos taken before 1907 about which I would like information. One shows a wreck of No. 83 on the M. & St. L. at Carver, Minn.; the other was snapped at Cologne, Minn., of the Milwaukee's No. 1238.—LLOYD ANDERSON, 315 Dayton Ave., S.E., Wadena, Minn.

* * *

Engine-picture trips are lots of fun. Last July, C. Thomas, Jr., and I bicycled 120 miles to the P. R. R. Horseshoe Curve. We made it in one day, despite a scorching sun, and spent the next day taking pictures.—FRED P. MCLEOD, 1068 5th St., Oakmont, Pa.

* * *

Old-Time Reminiscences

I am an old-time op, 63. My record shows 47 years in telegraph service without once being out of work and never having to ask for sick leave! It started Feb. 28, 1887, when I was 16 and was hired as operator for the Chicago & Alton at Blackburn, Mo. Then I worked in the same capacity for the Union Pacific and the Santa Fe. Between July, 1890, and Feb. 28, 1934, when I retired on pension, I worked continuously for the Western Union, mostly at Kansas City.

Readers of RAILROAD MAN'S MAGAZINE may remember me as a winner in the "Op Fist Contest." My photo appeared in your issue of Feb., 1931, in a feature article on the Cherokee Strip. I was Santa Fe station agent at Guthrie, Indian Territory, in 1889, at the time of the big land rush.

One day in October, 1889, at 1.30 A.M., came an experience I will never forget. The dispatcher had just sent a train order to me and to the brass-pounder at Wharton (now Mulhall, Okla.). As was the custom, I transmitted the message back to the dispatcher and sat waiting for the man at Wharton to do the same. But the telegraph key did not begin its *clickety-click* for several minutes. Then came a message, tapped out as with faltering hand: "I am shot—burglars—" and the sine WH, showing the call had come from Wharton. I called the company physician and officers, and a special train made the run to Wharton in record time. They found the operator had been killed while resisting robbers!

In 1917, while I was working in the W. U. Kansas City office, a girl from Lenape, Kan., came in and asked to be married by telegraph to her soldier sweetheart at a training camp in New Jersey. He was about to sail for France, and they wanted the ceremony performed before he left.

I got a marriage license, completed arrangements, and sat at the key during the ceremony. One minister stood with the bride at the Kansas City end, while another clergyman was with the groom at the camp. The wire transmitted the questions and replies of the bridal party and made it a legal marriage. It was the first ceremony of its kind held in Kansas City. The couple are now living happily near Lenape, with two or three children. Some day I am going out to visit them.

I attended 12 national political conventions and served as telegraph operator on several presidential campaign tours. On April 4, 1934, Mrs. Edwards and I celebrated our fortieth wedding anniversary. —EDWARD M. EDWARDS, 1400 College Ave., Kansas City, Mo.

RAILROAD STORIES Readers' Choice
280 Broadway, New York City

Stories, features and departments I like best in the June issue are:

1_____

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3_____

4_____

5_____

6_____

*Name*_____

*Occupation*_____

*Address*_____

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A Corner for Juice Fans

Who will give me the dimensions of the interurbans that used to run on the Detroit, Monroe & Toledo Ry.?—C. WILSON, "Shiprods," Henfield, Sussex, England.

* * *

The Chicago, South Shore & South Bend R. R. is one interurban which can hold its own with any steam road. It covers the 90 miles from Chicago to South Bend, Ind., in 2 hours. Five years ago it was literally hauled out of the junk heap and now is a first class road. Its locomotives are the best-looking electric interurban power I have ever seen. They weigh 80 tons, rated at 1,280 h. p. max. trac. effort, 40,000 lbs., max. speed, 45 m. p. h., built by Baldwin, have Westinghouse Electric 42-in. drivers on swivel trucks with 8 ft. 8 in. wheel base, cost about $56,000 each. —FRED JONES, 41 Brady St., San Francisco.

* * *

After reading "Fast Interurban Cars" (March issue, page 133) I still say the Cincinnati & Lake Erie is the world's fastest interurban. A few facts were overlooked in the running time between Columbus and Cincinnati. It is true that the running time is 4 hours and 10 minutes against 2 hours and 30 minutes on the Big 4. But let us remember that these are trolley cars which must pass through cities en route to Cincinnati. Nothing has been said about the 22 minutes required to get through the Columbus traffic; or the 5-minute stand at Springfield terminal, or the 5 minutes lost at Dayton changing operators for another division. Continuing to Cincinnati, it must pass through Middletown, Hamilton and small villages. Certainly 85 m. p. h. cannot be sustained through this traffic. It takes 25 minutes by motor coach from the interurban station in Cincinnati to go the 6 miles to Government Square—the total mileage being 130.9 against the Big 4's 116.

The C. & L. E. has all modern equipment; its oldest passenger cars in service were built in 1923. In 1927 some multiple-unit cars were constructed. Then 15 all-steel motor freight cars, 20 passenger cars, 10 de luxe type and 10 local type cars were made in 1930. The de luxe cars have a free running speed of 83 m. p. h. and the local type 79 m. p. h. What other interurban system has this amount of modern rolling stock? It takes an interurban trolley line to demonstrate speed, modernization and stream-lining.—WALTER F. DRUCK, 2 Boulevard, New Rochelle, N. Y.

* * *

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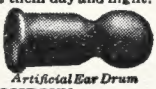

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29x5.25-19		2.95	1.15
30x5.25-20		2.95	1.15
31x5.25-21		2.95	1.15
28x5.50-18		3.35	1.15
29x5.50-19		3.35	1.15
30x6.00-18		3.40	1.15
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33x4	2.95	0.85
34x4	3.25	0.85
32x4½	3.35	1.15
33x4½	3.45	1.15
34x4½	3.45	1.15
30x5	3.65	1.35
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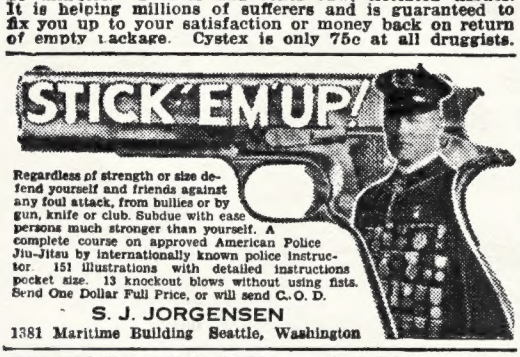

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Japanese Rose Bushes **bloom all the year round.** Just think of it. Six weeks after planting the seed, the plants will be in **full bloom.** It may not seem possible, but we positively **guarantee it to be so.** They will **bloom every ten weeks,** Summer or Winter, and when three years old the bush will be a **mass of roses,** bearing from five hundred to a thousand roses on each bush. The flowers are in three shades —white, pink, and crimson. The plants will do well both in and out doors. We guarantee at least three bushes to grow from each packet of seed. **Price, 10c** packet, 3 pkts. for **25c** postpaid.

10 cts.

Chinese Fragrant Tree Fern

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NATURE'S WEATHER PROPHET

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Amazingly Prolific—Easily Grown From Seed

The Ground Almond has a flavor that is MOST EXCELLENT, resembling the cocoanut. The meat is snow white, covered with a shell or skin of brown color. It grows close to the surface and anything from 200 to 300 Almonds may be expected from a single nut. There is no trouble whatever in growing anywhere and in any kind of soil. May be planted any time, and in eight or ten weeks from time of planting you will have an ENORMOUS CROP of the MOST DELICIOUS ALMONDS YOU EVER TASTED. **Seeds 15c Pkt.**

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Novelty from China and should be grown in every garden. Seems to be a cross between Celery and Cos Lettuce. Flavor is more mild than any other cabbage. **Can be served on the table** and eaten raw or cooked like cabbage, spinach or lettuce or made into salad. Grows very rapidly, easy to cultivate. You can create quite a sensation by cultivating this remarkable novelty. **Seeds, 15c packet, 3 pkts. for 40c**

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This splendid ornamental tree is a native of China, and is called the Tree of Heaven, on account of its great beauty. Very hardy, thrives in any soil, no matter how poor, and grows from 6 to 10 feet high from seed the first summer. The leaves are from 5 to 6 feet in any length, giving it a grand appearance. Nothing outside the tropics can equal it for lawn decoration. Large panicles of bloom, followed in season by great clusters of colored seed pods, make the tree a continual thing of beauty. **Packet, 15c; 3 packets 40c**

THE REMARKABLE

FIREFLY PLANT

A Vine that Blooms at Night

Fills the Atmosphere with Fragrant Aroma

One of the most rapid growing vines known. Under favorable conditions this vine has been known to grow OVER 28 FEET IN A SINGLE WEEK. In a very short space of time indeed the Vine has climbed to a great height, and is covered with IMMENSE FLOWERS, from 6 to 7 inches in diameter. It is, indeed, a great novelty, for, unlike other plants, the flowers OPEN IN THE EVENING, and remain open until about noon the following day. In dull weather they will remain open all day. It is a most INTERESTING SIGHT to watch the opening and closing of the flowers as the clouds appear and disperse. As the flowers open they give forth the most DELIGHTFUL FRAGRANT AROMA and the whole atmosphere around is full of scented fragrance. It is always the subject of favorable comment, and much curiosity is aroused by people passing at night time as to the cause of the delightful aroma, frequently stopping in an endeavor to satisfy their curiosity. **PRICE 10 CENTS packet, two packets for 35 CENTS, POSTPAID. JOHNSON SMITH & CO.**

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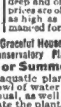
A luscious berry that may be grown and ripened from seed in any soil or climate in 5 months. The flavor is fine and unsurpassed for eating raw, cooked, canned or preserved in any form. The fruit is blue-black in color, and tastes like a delicious, rich blueberry. One bush will produce an enormous amount of fruit, yielding great masses of rich fruit all Summer and Fall. **Packet, 10c, 3 pkts. for 25c, postpaid.**

Shoo Fly Plant

A very remarkable Botanical curiosity you should have. Though quite odorless it is said flies will not remain in room where it is grown. Bears very pretty blooms from summer and winter. Grows rapidly from seed. **SEEDS 15c pkt., 3 for 40c, postpaid.**

Banana Musk Melon



Quite a curiosity. Looks and smells like a banana. Peculiar shape and its delicious aroma make it well worth your while cultivating. Flesh is deep and of exquisite flavor. Very high prices are obtained in choice city markets, as high as a dollar sometimes being demanded for one single specimen. **Seeds, 10c; 3 pkts. for 25c.**

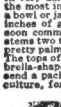
The Great Japanese Umbrella Palm

A Graceful House or Conservatory Plant

Easily Grown From Seed Winter or Summer

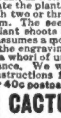
The Japanese Umbrella Palm is a semi-aquatic plant. It is easily grown from seed either in a bowl of water or in very rich soil. Probably the most usual, as well as the most interesting method, is to cultivate the plant in a bowl or jardiniere filled with water, with two or three inches of good garden soil at the bottom. The seeds soon commence to germinate, and the plant shoots up stems two to three feet high and rapidly assumes a most pretty palm-like appearance, as shown in the engraving. The tops of the stems are surmounted by a whorl of umbrella-shaped leaves of a waxy appearance. We will send a package of this seed, with full instructions for culture, for only **15c or three packets for 40c postpaid.**

Perfume Plant



Blooms only at night, giving forth the most delightful scented fragrance for quite a distance. Causes much comment. For house or garden use valuable because of rare perfume made from it. **SEEDS. 10c pkt., 3 for 25c.**

CACTUS FROM SEED



Very curious, odd looking, strange species of plants; will grow anywhere with little or no care. Flowers are of exquisite purity and delightfully fragrant. You will be astonished at the odd looks of the seedlings when they appear. Cacti just sprouting. **Packet, 10 cents, three packets for 25 cents, postpaid.**

GIGANTIC New GUINEA BUTTER BEANS

THE NEW EDIBLE VEGETABLE WONDER

Grows to an astonishing size, the beans measuring from 3 to 6 feet long, and weighing anything from 10 to 16 lbs. and even more. Enough for a family for several meals. Very palatable and rich in nutritious materials. The delicate Butter Flavor is much appreciated. The Vines are easily grown, very prolific, and a most welcome and valuable adjunct to your garden. Try them; you will find them the **most delicious vegetable you have ever tasted.** Imported direct. Unobtainable elsewhere. Sample package of Seeds with full directions for cultivating and cooking. **25c, postpaid.**

Kudzu Vine

Most rapid growing vine known. Will grow 20 feet in one week. Luxuriant foliage, lovely purple flowers, very fragrant. Nothing to equal it for shade purposes and quick growth.

Seeds 15c packet. 3 for 40c.

Yard Long Bean

Produces enormous crop of long, slender, round pods, of excellent quality for snap beans. Pods grow from 2 to 5 feet in length. Very tender and fine flavor. The vines are rampant growers; an interesting, curiosity. **Seeds 15c pkt., 3 for 40c**

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